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UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

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MONTHLY
LABOR REVIEW

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Wages and hours of labor in the manufacture of silk and rayon goods, 1931. Bulletin No. 568.

Labor legislation of Mexico. Bulletin No. 569.

Wages and hours of labor in foundries and machine shops, 1931. Bulletin No. 570.

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Wages and hours of labor in metalliferous mining, 1924 and 1931. Bulletin No. 573.

Technological changes and employment in the United States Postal Service. Bulletin No. 574.

Wages and hours of labor in air transportation. Bulletin No. 575.

IN PRESS

Wages and hours of labor in the slaughtering and meat-packing industry, 1931. Bulletin No. 576.

UNITED STATES DEPARTMENT OF LABOR
W. N. DOAK, Secretary
BUREAU OF LABOR STATISTICS
CHARLES E. BALDWIN, Acting Commissioner

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This Issue in Brief

In a study of the previous occupational status of old-age pensioners in New York State, it developed that over four-fifths of the men and about two-fifths of the women had been employed by others on a wage or salary basis. Among the men about one-sixth and among the women about one-ninth had had their own independent business or occupation. Nearly half of the women had never had paid employment. About three-fourths of the male pensioners had been employed in industry and commerce, and about five-eighths of those so employed had had unskilled or semiskilled jobs. The largest occupational groups among the men were laborers (including farm laborers), farmers, carpenters, and painters and paperhangers. Page 247.

In 1930, output per man per day in bituminous-coal mines was 46.2 per cent greater than in 1910, and average employment dropped below a half million persons for the first time since 1906. Mechanization of coal cutting and handling contributed to the mine workers' productivity, the rate of output per man-day for strip mines in 1930 being 13.92 tons; for a group of mines with mechanized loading, 7.16 tons; and for all mines, 5.06 tons. Page 256.

Earnings in the men's clothing industry in 1932 averaged 19.5 cents less per hour and $8.58 less per full-time week than in 1930, according to a survey recently completed by the Bureau of Labor Statistics covering 243 representative establishments manufacturing men's outer garments—coats, pants, vests, and overcoats. In 1932 the average earnings were 50.6 cents per hour and $22.47 per full-time week. Full-time hours averaged 44.4 in 1932 as compared with 44.3 in 1930, an increase of 0.1 hour per week. The average number of days worked per week in 1932 by males in the various occupations ranged from 4.7 to 5.3, and by females, from 4.3 to 5.5. Page 350.

Proposals for legislation for the alleviation of unemployment were made by the special commissions appointed in the States of Massachusetts and Connecticut to study and report on this question. In Massachusetts a bill was proposed which would provide for the establishment of State-compelled unemployment reserves maintained by contributions by employers, the benefits under which would be limited to 10 weeks in any 12-month period. In Connecticut the commission favored the establishment of a dismissal-wage system which would provide for the compulsory payment of a dismissal wage by employers having five or more persons in their employ. The maximum payment to any one employee under the proposed plan would be fixed at $120 for employment of 52 weeks and over. Pages 279 and 280.

An attempt to abolish the Arizona Industrial Commission and the workmen's compensation law was defeated in a referendum vote in the recent State election. The vote was more than three to one against repeal. Page 318.

The cost-of-living index number of the Bureau of Labor Statistics for December, 1932, shows a decline of 2.7 per cent from that for June, 1932. The decline during the 6-month period averaged 1.4 per cent for

food, 4.9 per cent for clothing, 7.7 per cent for rents, 0.1 per cent for fuel and light, 3.9 per cent for house-furnishing goods, and 1.4 per cent for miscellaneous items. As compared with the base year 1913, however, the figures for all of these groups except food were much higher in December, 1932, the increases between the two dates ranging from 18 per cent for rents to 99.3 per cent for the miscellaneous group, the increases for the other groups being 21.5 per cent for clothing, 47.4 per cent for house-furnishing goods, and 56.9 per cent for fuel and light. Food showed a decrease of 1.3 per cent between 1913 and December, 1932. Page 429.

The report of the President's Research Committee on Social Trends emphasizes the point that our present difficulties are due to the unequal rates of change in economic life, government, education, science, and religion. An equilibrium should be established, not by declaring a moratorium on invention or scientific advance, but by speeding up the lagging factors so that the country may enjoy a full and well-rounded progress. To secure this end will require conscious and concerted action and planning. "Nothing short of the combined intelligence of the Nation can cope with the predicaments here mentioned." Page 297.

In the fiscal year 1931–32 the expenditures for vocational education from Federal funds amounted to $8,414,834, and from State and local funds, $24,987,569, a total of $33,402,403—an increase of $1,259,211 over the preceding 12 months. The total enrollment in vocational schools and courses operated under State plans in the same year was 1,176,162, distributed as follows: 257,255 in agricultural schools, 579,591 in trade and industrial schools, and 339,316 in home economics schools. All the States were reported as being particularly interested in problems of training for the unemployed. Page 324.

A system of industrial councils for the Netherlands is provided for by a recent law. The councils are to consist of from 6 to 20 members, depending upon the character of the industry or enterprise. One-half of the members are to be appointed by labor unions and the other half by employers' associations. A council may act as a deliberative, advisory, executive, or arbitrative body in matters concerning the affairs of their respective enterprises, such as trade agreements, training of workers, combating of unemployment, promotion of good relations between employers and workers, and technical and commercial matters. Page 309.

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Occupational Distribution of Old-Age Pensioners in New York

THE United States Bureau of Labor Statistics recently made an analysis of 3,315 cases of persons granted old-age allowances in New York State, with a view to determining what their usual occupations had been during their working years. The analysis showed that, among the 1,707 men whose cases were studied, only 2 (0.1 per cent) had never been gainfully employed, while 1,415 (82.9 per cent) had been wage earners or salaried employees. Among the 1,608 women, 637 (39.6 per cent) had been gainfully employed on a wage or salary basis, while 786 (48.9 per cent) had been housewives or persons never employed.

Among the men 17 per cent and among the women 11.5 per cent had had their own independent business or occupation.

Scope and Method of Study

THE data were obtained directly from the files of the division of old-age security in the New York State Department of Social Welfare.

Only those cases were taken in which the person had at some time been in receipt of an old-age grant. Some of these grants, however, may later have been revoked or canceled, or have ceased because of altered financial circumstances, death of the beneficiary, etc. Thus the returns analyzed in the present study present the former regular occupational status of a group of old people who had been at some time old-age pensioners.

Altogether, data were obtained for 3,315 beneficiaries (1,707 men and 1,608 women) in the counties of Broome, Delaware, Fulton, Jefferson, Oneida, Orange, Oswego, Rensselaer, Suffolk, and Washington, and in three of the cities which have established their own welfare districts, namely, New York City, Schenectady, and Syracuse. These localities were chosen, on the advice of the State officials administering the old-age relief law, as representing varied and distinctive industries and sections of the State.

Broome County includes Binghamton and represents the shoe-manufacturing section of the State. Oswego [1] and Washington [2] Counties are rural, as are also Delaware [3] and Jefferson [4] Counties, the latter two having considerable dairying. Oneida County [5] represents both a good farming and urban section, the urban districts having various manufactures such as knit goods, lumber products,

[1] County seat, Oswego.
[2] County seat, Argyle.
[3] County seat, Delhi.
[4] County seat, Watertown.
[5] County seat, Utica.

steam engines and boilers, etc. Rensselaer County presents a similar combination, its urban section including the city of Troy, with its shirt and collar factories. Fulton County [6] includes Gloversville and Johnstown, an important tanning and manufacturing center, producing gloves, mittens, leather coats, etc. Orange County [7] includes urban sections, quarries for building stone, etc. Suffolk County [8] covers the middle and eastern parts of Long Island, with their fishing, farming, etc.

The purely industrial sections are represented by Syracuse (with manufactures such as typewriters, foundry and machine-shop products, knit goods, etc.), Schenectady (headquarters of the General Electric Co. and the American Locomotive Works), and New York City with its varied industries.

The following statement shows the number of cases obtained from each of the regions selected:

	Number of cases
County of—	
Broome	130
Delaware	126
Fulton	181
Jefferson	196
Oneida	358
Orange	211
Oswego	92
Rensselaer	316
Suffolk	205
Washington	99
City of—	
New York	993
Schenectady	122
Syracuse	286
Total	3,315

In each district half of the cases were taken, in the order in which application for pension was received by the authorities, for the period immediately following the date applications began to be received—September 1, 1930. Then, in order to show the effects, if any, caused by the depression, an equal number was obtained from the cases received during the last month or two of 1931 and the first few months of 1932. No attempt at selection was made; every case was included in which a grant was allowed. As already stated, no cases were taken in which for any reason the application for pension was denied.

The bureau's study covered only two questions on the application form used in New York: "Usual occupation in past" and "When last so employed." Other questions on the application form call for data regarding any work done during the past year, but that information was not taken, since the purpose of the bureau's study was to ascertain only the occupation most regularly filled by the applicant during his wage-earning years and not the odd jobs he may have obtained in the years after his powers began to decline.

Basis of Employment and Skill of Pensioners

TABLE 1 classifies the pensioners on the basis of their employment status (i. e., whether independent workers, self-employed, etc., or whether working for wages or salary) and of skill. The classification

[6] County seat, Johnstown. [7] County seats, Newburgh and Goshen. [8] County seat, Riverhead.

on the basis of skill was more or less arbitrary, but can be regarded as indicative in a general way.

It is seen that more than four-fifths of the men and about two-fifths of the women had been employed by others on a wage or salary basis, while about one-sixth of the men and one-ninth of the women were independent workers. Nearly half of the women had never had paid employment. Regarding the self-employed, it should be pointed out that many had been small storekeepers, hucksters, etc. There had been few in lines of financial importance, although those few included the former proprietor of a printing establishment, the owner of a motion-picture theater, two building contractors, the owner of a racing stable, a wholesale liquor dealer, a coffee and tea retailer, a fruit importer, a real-estate dealer, a jeweler, a druggist, two landscape gardeners, etc. Among the women, many of the independent workers had been dressmakers, taking in sewing to do at home.

TABLE 1.—DISTRIBUTION OF OLD-AGE PENSIONERS IN NEW YORK BY FORMER EMPLOYMENT BASIS AND DEGREE OF SKILL

Number

Employment basis and degree of skill	Males			Females			Both sexes
	New York City	Other districts	Total	New York City	Other districts	Total	
Wage and salaried workers:							
Agricultural (including forestry and fishery)—							
Farm laborers	------	71	71	------	------	------	71
Others	------	18	18	------	1	1	19
Total	------	89	89	------	1	1	90
Industrial and commercial—							
Skilled	160	300	460	6	14	20	480
Semiskilled	105	95	200	29	111	140	340
Unskilled—							
Laborers	33	237	270	------	------	------	270
Others	142	197	339	34	39	73	412
Total	440	829	1,269	69	164	233	1,502
Others—							
Skilled	8	9	17	10	27	37	54
Semiskilled	------	1	1	8	27	35	36
Unskilled	10	29	39	122	209	331	370
Total	18	39	57	140	263	403	460
Total, wage earners, etc	458	957	1,415	209	428	637	2,052
Independent workers:							
Agricultural (including forestry and fishery)	3	172	175	------	------	------	175
Commercial	53	47	100	4	9	13	113
Professional	11	3	14	4	2	6	20
Other	------	1	1	54	112	166	167
Total, independent	67	223	290	62	123	185	475
Not gainfully employed	------	2	2	197	589	786	788
Grand total	525	1,182	1,707	468	1,140	1,608	3,315

TABLE 1.—DISTRIBUTION OF OLD-AGE PENSIONERS IN NEW YORK BY FORMER EMPLOYMENT BASIS AND DEGREE OF SKILL—Continued

Per cent

Employment basis and degree of skill	Males			Females			Both sexes
	New York City	Other districts	Total	New York City	Other districts	Total	
Wage and salaried workers:							
Agricultural (including forestry and fishery)—							
Farm laborers	.....	6.0	4.2	.....	.....	.....	2.1
Others	.....	1.5	1.1	.....	0.1	0.1	.6
Total	.....	7.5	5.2	.....	.1	.1	2.7
Industrial and commercial—							
Skilled	30.5	25.4	26.9	1.3	1.2	1.2	14.5
Semiskilled	20.0	8.0	11.7	6.2	9.7	8.7	10.3
Unskilled—							
Laborers	6.3	20.1	15.8	.....	.....	.....	8.1
Others	27.0	16.7	19.9	7.3	3.4	4.5	12.4
Total	83.8	70.1	74.3	14.7	14.4	14.5	45.3
Others—							
Skilled	1.5	.8	1.0	2.1	2.4	2.3	1.6
Semiskilled	.....	.1	.1	1.7	2.4	2.2	1.1
Unskilled	1.9	2.5	2.3	26.1	18.3	20.6	11.2
Total	3.4	3.3	3.3	29.9	23.1	25.1	13.9
Total, wage earners, etc	87.2	81.0	82.9	44.7	37.5	39.6	61.9
Independent workers:							
Agricultural (including forestry and fishery)	.6	14.6	10.2	.....	.....	.....	5.3
Commercial	10.1	4.0	5.9	.9	.8	.8	3.4
Professional	2.1	.3	.8	.9	.2	.4	.6
Other	.....	.1	.1	11.5	9.8	10.3	5.0
Total, independent	12.8	18.9	17.0	13.2	10.8	11.5	14.3
Not gainfully employed	.....	.2	.1	42.1	51.7	48.9	23.8
Grand total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Only 5.2 per cent of the men had worked in agricultural occupations as wage earners, while 10.2 per cent had been independent farmers (though, as the records showed, in many cases supplementing their income from the farm by work in other lines, such as lumbering, blacksmithing, carpentry, etc.). Industry and commerce had given employment to over four-fifths of all the male pensioners—74.3 per cent on a wage basis and 5.9 per cent as independent workers.

Of the industrial and commercial workers, nearly 46 per cent of the men had generally worked in unskilled jobs, about one-third in skilled positions, and about one-seventh in jobs that might be classified as semiskilled.

Usual Occupations of Pensioners

TABLE 2 shows the distribution of the pensioners on the basis of their most usual occupation during their working years. This table gives a classification of primary or principal occupations only. In many cases a secondary occupation was given but such classification would have led to an almost endless number of combinations; for reasons of space, therefore, the secondary occupations had to be disregarded.

Among the men the largest occupational groups were, in order, laborers and odd-job men, farmers, carpenters, farm laborers, and painters and paperhangers, and the industry groups most commonly represented were manufacturing, agriculture (including fishery and forestry), and building construction. There was a large number (416 persons) for which occupations were known but which could not be related to any specific industry.

Among the women the largest group consisted of persons doing general housework. There was also a group of nearly 800 housewives and women who had never been in gainful employment. Here the classification is not entirely satisfactory, as it was not always possible to determine from the schedule whether "housework" meant housework done in the woman's own home or in that of another. Outstanding among the smaller occupation groups were the seamstresses, laundresses, practical nurses, collar workers, and glove workers.

TABLE 2.—NUMBER OF OLD-AGE PENSIONERS IN NEW YORK WHOSE "USUAL" OCCUPATIONS WERE AS SPECIFIED

Males

Industry and occupation	New York City	Other districts	Total
Agriculture, fishery, forestry			
Dairymen		1	1
Farm laborers		71	71
Farmers	1	139	140
Farmers and woodsmen		8	8
Fishermen		12	12
Gardeners	2	10	12
Gardeners' helpers		1	1
Logging laborers		1	1
Sawyers		3	3
Woodsmen		12	12
Total	3	258	261
Amusements			
Owners of motion-picture theater	1		1
Stage managers	1		1
Wardrobe men	1		1
Other theater employees	3		3
Total	6		6
Building construction			
Bricklayers	1	2	3
Carpenters (including millwrights)	22	81	103
Contractors	2	2	4
Elevator constructors		1	1
Glaziers	1		1
Hod carriers		2	2
Ironworkers	2	2	4
Laborers and helpers	3	7	10
Masons	2	17	19
Painters and paperhangers	19	43	62
Plasterers	3	1	4
Plumbers and steam fitters	5	5	10
Roofers	1	1	2
Total	61	164	225
Building service, maintenance, and repair			
Building superintendents	2		2
Elevator operators	10	5	15
Engineers, electrical	1		1
Building service, maintenance, and repair—Continued			
Engineers and firemen, stationary	6	11	17
Janitors and helpers	6	21	27
Watchmen and helpers	32	14	46
Doormen	2		2
Total	59	51	110
Domestic and personal service			
Barbers	4	4	8
Caretakers	1	5	6
Coachmen	1	1	2
Guides	1	2	3
Hospital attendants	2		2
Others		3	3
Total	9	15	24
Hotels and restaurants			
Chefs and cooks	5	2	7
Clerks, hotel	3	1	4
Dishwashers	1	2	3
Managers, hotel	1		1
Waiters	5		5
Others	1	2	3
Total	16	7	23
Manufacturing			
Chemicals and allied products:			
Employees, acid factory		1	1
Employees, oil company		1	1
Employees, soap factory		1	1
Laborers, paint factory	1		1
Total	1	3	4
Electrical apparatus and supplies:			
Armature winders	1		1
Battery men	1		1
Others	2	1	3
Total	4	1	5

TABLE 2.—NUMBER OF OLD-AGE PENSIONERS IN NEW YORK WHOSE "USUAL" OCCUPATIONS WERE AS SPECIFIED—Continued

Males—Continued

Industry and occupation	New York City	Other districts	Total
Manufacturing—Continued			
Food and kindred products:			
Bakers	2	2	4
Brewers	2		2
Butchers	2	5	7
Cheese makers		2	2
Others	7		7
Total	13	9	22
Foundry and machine-shop products:			
Drop forgers	1		1
Foundrymen		2	2
Molders		7	7
Pattern makers	1	2	3
Tool and die makers	1	2	3
Others	1	2	3
Total	4	15	19
Metal products:			
Gun-factory mechanics		1	1
Gunsmiths		1	1
Heaters, iron		1	1
Jewelry workers—			
Engravers	1	1	2
Pattern filers	1		1
Others	1		1
Knife makers		2	2
Metal polishers	1	1	2
Puddlers, iron		4	4
Stove mounters		1	1
Watchcase workers—			
Machine operatives	1	1	2
Polishers		1	1
Wire finishers		1	1
Others	2	6	8
Total	7	21	28
Leather and its products:			
Glove workers—			
Cutters		10	10
Makers		3	3
Others		8	8
Shoe workers—			
Cutters	1		1
Shoemakers	3	5	8
Stitchers	1		1
Others	1	2	3
Tannery workers—			
Beam hands		1	1
Finishers		1	1
Tanners	1	1	2
Others		7	7
Cutters, sweatbands	1		1
Harness makers		2	2
Pocketbook makers	1		1
Proprietors	1		1
Others		2	2
Total	10	42	52
Machinery, n. o. c.:			
Machine operators, clocks	1		1
Operatives, radios	1		1
Typewriter mechanics		1	1
Total	2	1	3
Paper and printing:			
Bookbinders	5		5
Color grinders, ink	1		1
Lithographers	1	1	2
Paper makers		3	3
Plate makers	1		1
Printers	6	1	7
Printing pressmen	2		2
Proprietors		1	1
Others	2	3	5
Total	18	9	27
Stone, clay, and glass products:			
Brick makers		1	1
Glass blowers		1	1
Polishers	2		2
Stonecutters	1	8	9
Stonecutters, master		1	1
Others	3	8	11
Total	6	19	25
Textiles and their products:			
Bleachery operatives		1	1
Carpet workers		3	3
Collar workers		1	1
Cotton-mill workers—			
Loom fixers		1	1
Spinners		3	3
Others		9	9
Garment workers—			
Cutters	3	1	4
Pressers	5	1	6
Tailors	11	6	17
Others	2		2
Hat and cap workers	2	2	4
Knit-goods workers		9	9
Mattress makers		1	1
Shirt workers		3	3
Silk-mill workers	2		2
Umbrella makers	1		1
Upholsterers		2	2
Others		3	3
Total	26	46	72
Tobacco products:			
Cigar makers	12	3	15
Cigar strippers	1		1
Total	13	3	16
Transportation equipment:			
Airplane machinists	1		1
Automobile mechanics	1		1
Automobile painters	2	1	3
Locomotive inspectors		1	1
Locomotive machinists		1	1
Others		1	1
Total	4	4	8
Wood products:			
Boat builders		3	3
Cabinetmakers	4	4	8
Carriage and wagon makers	1	2	3
Chair-factory employees		5	5
Cigar-box makers		1	1
Finishers, wood	1	1	2
Piano makers	2		2
Piano sounders	1		1
Sawmill workers		1	1
Turners	2		2
Others	4	6	10
Total	15	23	38
Miscellaneous:			
Basket makers		3	3
Brush makers	1	3	4
Others	2	12	14
Total	3	18	21
Total, manufacturing	126	214	340

TABLE 2.—NUMBER OF OLD-AGE PENSIONERS IN NEW YORK WHOSE "USUAL" OCCUPATIONS WERE AS SPECIFIED—Continued

Males—Continued

Industry and occupation	New York City	Other districts	Total
Office and clerical employment			
Bookkeepers and accountants	4	3	7
Others	------	2	2
Total	4	5	9
Professions			
Actors	3	1	4
Architects	1	------	1
Artists	4	------	4
Clergymen	1	------	1
Dentists	1	1	2
Lawyers	3	------	3
Musicians	------	2	2
Teachers	2	2	4
Others	2	2	4
Total	17	8	25
Public service			
Municipal employees	4	20	24
State employees	1	1	2
Federal employees	1	1	2
Total	6	22	28
Road construction			
All employees	1	4	5
Trade, wholesale and retail			
Dealers, wholesale	1	1	2
Dealers, retail	14	22	36
Importers	1	------	1
Merchants, commission	1	------	1
Mercantile employees and sales people:			
Canvassers	1	3	4
Peddlers	16	2	18
Salesmen, traveling	------	1	1
Sales people, store	29	14	43
Others	17	2	19
Salesmen, insurance	1	3	4
Salesmen, real estate	3	------	3
Total	84	48	132
Transportation			
Railroads:			
Baggagemen and freight handlers	------	2	2
Conductors	------	1	1
Crossing flagmen	------	4	4
Laborers and section hands	1	7	8
Locomotive engineers	1	3	4
Telegraphers	------	1	1
Trainmen	------	1	1
Others	5	14	19
Street railways:			
Conductors	1	------	1
Motormen	1	1	2
Others	2	2	4
Land transportation, n. o. c.:			
Drivers, cab	1	1	2
Teamsters	------	17	17
Truck drivers	5	4	9
Others	5	------	5
Water transportation:			
Boatmen	------	4	4
Captains, ship, yacht, and barge	2	3	5
Engineers and firemen, marine	1	3	4
Longshoremen	3	------	3
Others	4	1	5
Total	32	69	101
Industry not known			
Blacksmiths	2	21	23
Clerks	1	2	3
Collectors	2	1	3
Engineers	2	2	4
Laborers and odd-job men	38	221	259
Landscape gardeners	------	2	2
Machine operators	1	4	5
Machinists	7	16	23
Mechanics	2	4	6
Messengers	7	1	8
Porters	8	3	11
Shop workers	------	3	3
Tinsmiths	2	2	4
Others	29	33	62
Total	101	315	416
Not gainfully employed	------	2	2
Grand total	525	1,182	1,707

Females

Building service, maintenance, and repair			
Cleaners, office	2	2	4
Cleaners, office furniture	1	------	1
Janitresses	7	3	10
Total	10	5	15
Domestic and personal service			
Cooks	8	23	31
Hospital employees	2	1	3
Housekeepers	11	13	24
Houseworkers, general	88	150	238
Laundresses	16	42	58
Masseuses	------	2	2
Mothers' helpers	3	------	3
Nurses	7	18	25
Nurses, children's	------	5	5
Domestic and personal service—Continued			
Nurses, practical	12	27	39
Nurses, trained	1	1	2
Others	2	3	5
Total	150	285	435
Hotels, restaurants, etc.			
Boarding-house keepers	3	11	14
Chambermaids	3	------	3
Kitchen workers, hotel	1	1	2
Rooming-house keepers	5	4	9
Waitresses	1	1	2
Others	1	5	6
Total	14	22	36

TABLE 2.—NUMBER OF OLD-AGE PENSIONERS IN NEW YORK WHOSE "USUAL" OCCUPATIONS WERE AS SPECIFIED—Continued

Females—Continued

Industry and occupation	New York City	Other districts	Total
Manufacturing			
Food and kindred products:			
Candy packers		1	1
Chocolate wrappers		1	1
Total		2	2
Leather and its products:			
Baseballs, operatives on	1	1	2
Glove workers—			
Makers		2	2
Other operatives		29	29
Home workers		4	4
Shoe workers	1	1	2
Total	2	37	39
Textiles and their products:			
Artificial-flower makers	3		3
Carpet workers		3	3
Collar workers		38	38
Garment workers—			
Children's clothing	4	1	5
Men's clothing	2	1	3
Women's clothing	1	2	3
Knit-goods workers		10	10
Millinery workers	3	1	4
Neckwear workers	3		3
Seamstresses	32	57	89
Shirt workers—			
Ironers		2	2
Others		6	6
Silk workers	2	1	3
Umbrella sewers	2		2
Tailoresses	1	7	8
Others	5	5	10
Total	58	134	192
Tobacco products:			
Cigar makers	1	4	5
Cigarette packers	1		1
Total	2	4	6
Miscellaneous:			
Hair workers		2	2
Knife makers		1	1
Manufacturing—Continued			
Miscellaneous—Continued.			
Labelers	3		3
Others	5	18	23
Total	8	21	29
Total manufacturing	70	198	268
Office and clerical employment			
Cashiers	3		3
Clerks	3	1	4
Others	1		1
Total	7	1	8
Professions			
Actresses	2		2
Artists	2	2	4
Librarians		1	1
Music teachers	2		2
School-teachers	1	8	9
Total	7	11	18
Trade, wholesale and retail			
Dealers, retail	1	2	3
Mercantile employees and sales people:			
Canvassers	3	7	10
Fitters		1	1
Saleswomen	5	9	14
Total	9	19	28
Miscellaneous			
Laundry workers	1	1	2
Others	3	9	12
Housewives and not gainfully employed	197	589	786
Grand total	468	1,140	1,608

Year of Last Employment at Usual Occupation

TABLE 3 shows the latest year in which employment was had at the pensioner's "usual" occupation. It is seen that of the men, some 400 had worked at their regular trades up to within a year or two of the time the old-age security act went into effect (1930), while another 200 had had some work at their regular jobs even during 1930. The classification "still active" includes not only those able even now to obtain some employment in their regular occupation now and then, but also a few who, while no longer engaged at their trade, had never gone into any other employment and therefore still regarded themselves as carpenters, painters, etc.

TABLE 3.—DISTRIBUTION OF PENSIONERS IN NEW YORK, ACCORDING TO LAST YEAR IN WHICH THEY WORKED AT USUAL OCCUPATION

Year	Males			Females			Grand total
	New York City	Other districts	Total	New York City	Other districts	Total	
Prior to 1900	1	6	7	3	5	8	15
1900	2	2	4		3	3	7
1901					1	1	1
1902	3	1	4				4
1904	1		1				1
1905	2	3	5		1	1	6
1906		1	1	1		1	2
1907	2	3	5	2	1	3	8
1908	1	2	3	1		1	4
1909					2	2	2
1910	6	10	16	4	13	17	33
1911	1	3	4		3	3	7
1912	2	6	8	1	2	3	11
1913	1	3	4				4
1914	1	7	8				8
1915	11	17	28	1	8	9	37
1916	2	3	5	2	7	9	14
1917	2	9	11	1	2	3	14
1918	12	22	34	4	8	12	46
1919	8	5	13	6	5	11	24
1920	21	48	69	12	24	36	105
1921	11	20	31	4	10	14	45
1922	11	24	35	3	14	17	52
1923	12	23	35	8	14	22	57
1924	17	39	56	8	22	30	86
1925	27	80	107	22	31	53	160
1926	31	76	107	20	31	51	158
1927	44	82	126	16	34	50	176
1928	65	135	200	37	31	68	268
1929	69	141	210	22	63	85	295
1930	61	149	210	33	70	103	313
1931	63	110	173	23	44	67	240
1932	2	21	23	1	6	7	30
Year not reported	7	52	59	17	30	47	106
Never employed		2	2	197	588	785	787
Still active	26	77	103	19	67	86	189
Total	525	1,182	1,707	468	1,140	1,608	3,315

Employment in Relation to Mechanization in the Bituminous-Coal Industry

THE labor requirements of bituminous-coal mines are a factor in the labor markets of 32 States and Alaska. Thus, any technological and other changes tending to displace workers in this particular industry have a wide-spread influence. Because of the importance of the industry, not only geographically but also with respect to the large numbers of persons deriving their livelihood from it, the Bureau of Labor Statistics has recently made a study of employment and productivity in this industry in relation to mechanization. The data for this study were drawn in the main from the annual and special reports of the United States Bureau of Mines. In addition, through direct inquiry, data were obtained by the Bureau of Labor Statistics regarding the changes in productivity brought about through the introduction of mechanical loading in a small group of mines in Illinois, Pennsylvania, and Wyoming.

Characteristic of the bituminous-coal industry in late years are a sustained increase in output per man per day, fluctuations in coal production with a generally higher annual output in recent years than in the earlier years included in the study, considerable variation in the working year and a reduction in employment, until at present there are actually fewer persons on mine pay rolls than in 1910. The output per man per day in this industry increased 40.2 per cent between 1910 and 1929, and 46.2 per cent between 1910 and 1930. Undoubtedly, many factors contributed to this increase, among them a tendency toward better attendance, stricter observance of working hours, and improved personnel methods, often in conjunction with introduction of mechanized mining processes; the shutdown or abandonment of many of the least efficient mines, due to the depression in the industry, and a reduction in nonproductive development work both underground and on the surface; and the opening up of newer mining districts with relatively higher rates of output per man per day. In considerable part, however, this increased productivity must be attributed to improved mining technology.

Preliminary figures for 1931 show that the upward movement in productivity rates has continued even as the depression in the industry has become accentuated and total production has declined. Moreover, there is every likelihood that the trend toward greater productivity per man per day will not be halted as long as the industry produces at a curtailed rate, it being quite natural that the use of mechanized methods should spread, thus reducing the cost of labor, which, according to the Bureau of Mines, is the chief factor in mining costs. Should the industry again be called upon to produce in greater volume it is doubtful whether the increase in the general productivity rate will be as rapid as heretofore, especially if the marginal producers who have been forced out of the market by low prices are again enabled to compete. However, considering the large tonnages available which are adapted to mechanization of loading, for example, it seems only reasonable to conclude that mechanization will be more widely applied and accordingly that output per man per day will not remain stationary.

Based on the production and full working time of 1930 and the output per man per day in 1910, 722,584 men would have been needed to

mine the 467,526,000 tons of coal produced in 1930, or 229,382 more men than were actually employed. This average is slightly higher than the average number of persons (706,032) who would have been needed to produce the 1929 output, the difference arising because the working year was shorter in 1930 than in 1929 (187 days as compared with 219 days) and because of the smaller tonnage produced in 1930.

The effects on employment opportunities of the various mechanized processes which have contributed to the rise in output per man per day can be measured statistically only in two instances; namely, for strip mines and for undergound workings in which mechanical loading has replaced hand loading. The strip mines and the mines with mechanical loading have had sufficiently high productivity rates to raise the United States average for all production from 4.76 tons per man per day to 5.06 in 1930, and this in spite of the fact that only 15 per cent of the total tonnage comes from these two classes of mines. If strip mines and mechanized-loading mines were replaced by mines producing at the same rate per day of labor as other mines in the United States, an average number of 525,240 persons would have been necessary in 1930 instead of the 493,202 actually employed. Thus, the potential loss in jobs due to the efficiency of these mines alone amounts to about 32,000.

Trend of Employment and Production in the Industry Since 1910

In order to visualize the changes in the bituminous-coal industry in the past two decades, data are given in Table 1 showing the yearly average number of employees, the average number of days the mines were in operation, and the total number of tons produced, for each of the years 1910 to 1930. Similar data (by 5-year periods) and index numbers are shown in Table 2.

Table 1.—EMPLOYMENT, DAYS WORKED, AND PRODUCTION OF BITUMINOUS-COAL MINES IN THE UNITED STATES, BY YEARS, 1910 TO 1930

Year	Number of mines in operation [1]	Average number of employees	Average number of days in operation	Number of tons produced
1910	5,818	555,533	217	417,111,000
1911	5,887	549,775	211	405,907,000
1912	5,747	548,632	223	450,105,000
1913	5,776	571,882	232	478,436,000
1914	5,592	583,506	195	422,704,000
1915	5,502	557,456	203	442,624,000
1916	5,726	561,102	230	502,520,000
1917	6,939	603,143	243	551,791,000
1918	8,319	615,305	249	579,386,000
1919	8,994	621,998	195	465,860,000
1920	8,921	639,547	220	568,667,000
1921	8,038	663,754	149	415,922,000
1922	9,209	687,958	142	422,268,000
1923	9,331	704,793	179	564,565,000
1924	7,586	619,604	171	483,687,000
1925	7,144	588,493	195	520,053,000
1926	7,177	593,647	215	573,367,000
1927	7,011	593,918	191	517,763,000
1928	6,450	522,150	203	500,745,000
1929	6,057	502,993	219	534,989,000
1930	5,891	493,202	187	467,526,000

[1] Not including wagon mines producing less than 1,000 tons per year.

For the first time since 1906, the bituminous-coal industry of the United States in 1930 carried an average of less than a half million persons on mine pay rolls. The downward movement in employment that culminated with this low average started in 1924 after a year of unprecedented employment opportunity in the industry. The maximum of employment (704,793) in 1923 was reached after a period of gradual expansion beginning in 1916.

The fluctuations in tonnage produced between 1910 and 1930 have been no less sharp, as between the peak and low year, than the changes in volume of employment, but the changes have not coincided. Production has been more erratic from year to year than employment, with no clearly defined upward and downward trends. Nevertheless, the record of the industry with respect to production was more favorable than for employment in 1930 as compared with 1910, for in that period production increased 12 per cent and employment decreased 11 per cent.

The bituminous-coal mining industry is one in which the number of days of work furnished men has persistently remained far below the possible number. The situation arises out of a custom of using the whole labor force as long as orders for coal are on hand and of shutting down completely except for a few maintenance men at other times. Conditions in any one year vary widely, and one field may work a larger number of days than another, depending on local market conditions, weather, labor disputes, competitive advantages, etc. The national average of days worked by all mines in the country has not, in any year since 1910, risen above 249 days out of a possible 300 to 308.

In 9 of the 21 years covered by Table 1 the average number of days worked was below 200; in 8, between 200 and 225; and in the remaining 4 years the average of days worked was between 225 and 250. The years 1917 and 1918 stand out as offering the greatest working opportunity, with averages of 243 and 249, respectively. In 1921 and 1922 the working year was shorter than at any other time in the period covered, the averages being 149 and 142, respectively, but it must be pointed out that in these two years mine capacity was being extended and volume of employment had almost reached its peak.

Taking all 21 years covered in Table 1, the number of days worked per year averages 203, or approximately two-thirds of the possible working time. Thus if operators should find it expedient to open their mines daily, and rates of productivity, demand, and technology remained unchanged, the industry would have need for only two-thirds as many workers.

TABLE 2.—EMPLOYMENT, DAYS WORKED, AND PRODUCTION (WITH INDEX NUMBERS THEREOF) IN BITUMINOUS-COAL MINES IN THE UNITED STATES, BY 5-YEAR PERIODS, 1910 TO 1930

Period	Average number of employees	Average number of days in operation	Number of tons produced	Index numbers (1910–1914=100.0)		
				Employees	Days in operation	Production
1910–1914	561,866	216	434,853,000	100.0	100.0	100.0
1915–1919	591,801	224	508,436,000	105.3	103.7	116.9
1920–1924	663,131	172	491,022,000	118.0	79.6	112.9
1925–1929	560,240	205	529,383,000	99.7	94.9	121.7
1930	493,202	187	467,526,000	87.8	86.6	107.5

The movement of the 5-year averages and index numbers, shown in Table 2, indicates that even as early as 1915–1919 the increased demand for bituminous coal did not result in a commensurate increase in either working time or employment, the index for production having increased to 116.9 while the indexes for number employed and days worked reached only 105.3 and 103.7, respectively. Between 1920 and 1924, although working time was short (index 79.6) and production declined somewhat below the previous 5-year period (to 112.9), the employment index reached a peak of 118.0 owing to the fact that the market for coal was particularly good in 1920 and 1923, but more particularly, as already noted, because of a swing toward the expansion of mine capacity (in 1923 the number of mines in operation reached a record high of 9,331, having risen from less than 7,000 in 1917). The index of production in 1925–1929, or 121.7, reflects better market conditions accompanied by a rise in working time (index, 94.9) and a decline in number of employees to practically the 1910–1914 level. The movement toward greater productivity that became marked between 1926 and 1930 was further accentuated in 1930, when the index of production stood at 107.5, number employed at 87.8, and days worked at 86.6.

With respect to the length of the working-day, more than 90 per cent of the men employed in mines have been employed on an 8-hour-day basis since 1918, with an "established" working week of 6 days or 48 hours, when market conditions have permitted. The remaining men are employed in mines operating on a 9 and 10 hour basis or in those with irregular working time. According to the findings of the Bureau of Mines, the average length of the established working-day in mines, weighted on the basis of men employed, was 8.6 hours from 1910 to 1916, dropping to 8.3 hours in 1917 and 8.1 in 1918. Thereafter, the average working time fell below 8.1, but has remained fractionally above 8 hours since that time.

A record of actual working time obtained from operators for a half month by the Bureau of Labor Statistics in conjunction with its biennial surveys of hours and earnings in bituminous-coal mining, shows the following:

TABLE 3.—AVERAGE DAILY HOURS OF BITUMINOUS-COAL MINE WORKERS, IN SPECIFIED YEARS, 1922 TO 1931

Year	Tonnage workers		Day workers		All workers	
	Number	Hours at face, including time for lunch	Number	Average hours per start (day)	Number	Average hours per day [1]
1922	33,360	7.7	19,388	8.7	52,748	8.1
1924	91,167	7.8	49,552	8.5	140,719	8.0
1926	96,010	7.9	52,145	8.6	148,155	8.1
1929	99,405	8.0	52,806	8.6	152,211	8.2
1931	90,063	8.1	47,725	8.4	137,788	8.2

[1] Including time for lunch of tonnage workers.

Throughout the years for which statistics are available, the day men, who are time workers, have worked a greater number of hours per day than tonnage men, who are paid at piece rates. The average

hours shown in Table 3 for all workers are not the actual working time, as they include the time spent by tonnage men in eating their lunch. Assuming, however, that the time spent for meals is not considerable and has not varied greatly, it is seen that the time at work has tended to be higher than the "established" working-day reported by the Bureau of Mines, and also that the average working-day in 1929 and 1931 was fractionally longer than in the earlier years for which records are available.

In the absence of time records for the period prior to 1922, it can not be stated with any certainty that actual working hours decreased between 1910 and 1922. However, the nominal working-day did grow progressively shorter.

Productivity of Mine Labor

Production per man per day.—The best available measure of productivity in the coal industry is the average number of tons produced per man per day, a figure arrived at by dividing the total tonnage produced by the number of man-days worked in any given period. Although the unit of product (the ton) is satisfactory from the statistical standpoint, the "man-day" in this industry is not an exact quantity, owing to the fact that mines do not keep an actual day-to-day count of the employees' attendance or working time. Thus the number of mine employees given represents the usual number of persons on the pay roll, rather than a regularly computed average of number of employees. Similarly the day, or "start" as it is known in mine parlance, is not a working period of definite duration, for although working time in mines is generally set at 8 hours per day it does not always follow that men remain at work for the full day. Short time may be caused by exigencies such as car shortage, minor breakdowns of machinery, accidents, and optional early quitting (a privilege allowed to the tonnage men). In the earlier years covered by this study, although the nominal working-day was longer than it has been recently, there was probably greater exercise of the tonnage man's prerogative to leave the mine early than there is at present under a more generally mechanized system of mining, it now being important to keep a full complement of men at work in order that the best use may be made of mechanical equipment. In more recent years there has undoubtedly been a higher ratio of effective working time in relation to the full-time working-day than was formerly obtained under the longer working-day, although the nominal working-day is now shorter.

It is seen from Table 4 that for all mine labor, excluding coke workers and office force, average output per man per day has risen from 3.46 net tons in 1910 to 4.85 tons in 1929 and 5.06 tons in 1930, or by 40.2 and 46.2 per cent, respectively, in a period of 20 to 21 years.

With few exceptions the average output per man per day [1] has increased steadily, the rate of increase between 1920 and 1930 having been greater than between 1910 and 1920 and the index of output per man per day (base 1910–1914) having risen to 107.0 in 1915–1919, 119.8 in 1920–1924, and to 129.0 in 1925–1929.

[1] It is likely that regularization of the working-day has been more effective since 1920 than in the preceding decade. Also, productivity rates have increased more rapidly since 1920 than in 1910–1919 and, whatever the error in averages of output per man per day over a long term of years, it seems that the rapid rise in productivity since 1920 is attributable to causes other than any error in the basic unit, the day.

TABLE 4.—OUTPUT PER MAN PER DAY OF BITUMINOUS-COAL MINE WORKERS, 1910 TO 1930

[Includes all underground and surface workers but not coke workers or office force]

Period	Production per man per day		Period	Production per man per day	
	Tons	Per cent of change as compared with previous year		Tons	Per cent of change as compared with previous year
1910	3.46		1927	4.55	+1.1
1911	3.50	+1.2	1928	4.73	+4.0
1912	3.68	+5.1	1929	4.85	+2.5
1913	3.61	−1.9	1930	5.05	+4.3
1914	3.71	+2.8			
1915	3.91	+5.4			
1916	3.90	−.3			Index numbers
1917	3.77	−3.3			
1918	3.78	+.3			
1919	3.84	+1.6			
1920	4.00	+4.2			
1921	4.20	+5.0	1910–1914	3.59	100.0
1922	4.28	+1.9	1915–1919	3.84	107.0
1923	4.47	+4.4	1920–1924	4.30	119.8
1924	4.56	+2.0	1925–1929	4.63	129.0
1925	4.52	−.9	1930	5.06	140.9
1926	4.50	−.4			

Underground employees constitute the majority of the mine personnel, forming 86.5 per cent of the total in 1911 (the first year for which statistics are available) and in 1930. However, in the intervening years the percentage that surface workers formed of the total rose as high as 19.3 in 1918; this rise was due largely to the volume of outside repair and construction work which was carried on, in years of active coal demand, in order to increase the labor force and thus increase the allotment of cars to the mine by the railroad. Averages of output per man per day from 1911 to 1930 show that productivity of the underground workers has increased slightly less rapidly than for all workers taken together. A factor in the more rapid increase in productivity of surface men is the growth of strip mining, the strip mine workers being classed as surface workers. In 1911 the average of output per man per day for underground workers was 4.01 net tons and in 1930 it was 5.61. The percentage increase is thus 39.9, as compared with an increase from 3.50 to 5.06 tons, or 44.6 per cent, for all workers.

An indication of the trend of productivity of the various classes of mine workers since 1925 [2] is given in Table 5, compiled from statistics of the Bureau of Mines.

The averages in Table 5 indicate that productivity per man per day increased between 1925 and 1930 among one or more classes of mine labor in the 24 coal-producing States for which figures are shown. In 10 States and the United States as a whole, an increase in productivity occurred for all of the four classes of labor shown; in 19 States, an increase is apparent for miners, loaders, and shot firers and for haulage and track workers, in 21 for all other underground workers, and in 17 States for surface workers.

[2] The necessary employment statistics are available only since 1925.

TABLE 5.—OUTPUT PER MAN PER DAY OF SPECIFIED CLASSES OF COAL-MINE WORKERS, 1925 AND 1930, BY STATES

State	Production (in net tons) per man per day of—							
	Underground employees						Surface employees	
	Miners, loaders, and shot firers		Haulage and track employees		All others			
	1925	1930	1925	1930	1925	1930	1925	1930
Alabama	5.2	5.4	25.0	30.5	21.4	27.4	18.2	23.4
Arkansas	5.2	4.2	29.2	28.4	28.1	34.4	13.8	22.8
Colorado	6.3	6.5	37.0	42.8	42.3	50.6	26.7	30.5
Illinois	7.1	10.2	44.3	58.9	44.2	51.3	50.6	48.2
Indiana	9.3	13.0	45.6	70.7	65.7	79.1	39.7	34.8
Iowa	4.2	4.3	33.0	37.2	28.0	35.2	37.1	39.9
Kansas	4.9	6.1	48.0	52.5	45.2	91.0	22.5	17.3
Kentucky	8.0	7.8	36.3	38.7	35.8	38.6	29.8	36.6
Maryland	5.4	5.0	28.3	32.4	48.5	39.3	28.5	32.3
Michigan	4.2	4.0	15.5	19.4	32.9	29.0	31.3	33.3
Missouri	5.4	6.6	54.1	53.0	26.7	59.1	13.4	17.9
Montana	11.3	14.8	60.8	70.8	49.4	113.4	39.5	35.3
New Mexico	5.6	5.7	30.4	38.6	39.3	49.5	27.6	26.0
North Dakota	12.1	14.8	117.0	127.6	113.9	188.9	19.7	19.0
Ohio	6.7	6.7	55.5	50.6	47.2	50.2	38.4	40.1
Oklahoma	4.9	5.5	17.8	29.5	22.5	41.0	14.9	21.5
Pennsylvania	6.6	7.0	46.6	49.5	35.9	46.5	35.4	43.3
Tennessee	5.0	5.2	24.4	31.8	31.3	34.6	20.5	27.9
Texas	4.8	5.3	34.6	32.7	34.8	38.4	21.3	27.6
Utah	10.2	13.2	44.8	51.8	58.1	59.2	31.4	38.3
Virginia	7.5	8.5	23.6	32.3	20.6	29.4	20.9	31.4
Washington	6.4	6.7	34.7	38.9	24.5	27.4	17.5	26.7
West Virginia	9.0	9.7	31.5	37.0	36.8	43.8	30.5	40.1
Wyoming	9.4	10.8	47.4	43.2	61.3	57.9	39.7	36.0
United States	7.3	8.0	38.9	43.6	37.8	44.8	32.5	37.6

Production per man per year.—In the United States, where the working year for coal mines is low in relation to the possible working time, a record of output per man per year is less significant than in countries where regular mine operation is the rule. Nevertheless it is interesting to trace the yearly average output per capita over a period of years, as is done in Table 6.

TABLE 6.—ANNUAL PER CAPITA PRODUCTION OF MINE WORKERS, 1910 TO 1930

Year	Tons produced per man per year [1]	Year	Tons produced per man per year [1]	Year	Tons produced per man per year [1]
1910	751	1917	915	1924	781
1911	738	1918	942	1925	884
1912	820	1919	749	1926	966
1913	837	1920	881	1927	872
1914	724	1921	627	1928	959
1915	794	1922	609	1929	1,064
1916	896	1923	801	1930	948

[1] Computed by dividing total tonnage by average number of underground and surface workers (excluding coke workers and office force).

Considerable fluctuation from year to year is shown in the yearly per capita production, the smallest amount (609 tons) having been produced in 1922, when the mines operated only 142 days. An indication of the increased productivity of mine labor, however, is shown by the fact that in 1910 (when the mines worked 217 days) the average output per man was 751 tons, whereas in 1929 the mines were in operation only 2 days longer than in 1910 but the average per capita production was 1,064 tons.

Causes Contributing to Labor Displacement

A NUMBER of factors have contributed to the increased productivity of mine labor. The greatest single cause is, undoubtedly, the introduction of power equipment adapted to mining requirements, i. e., the machine cutter, power drills for shot holes, electrically operated pumps, the power-driven steam shovel, the mechanized loader and conveyor, the electrically driven mine car, and in some sections improved mechanical cleaning apparatus. Improvement in technology and the spread of established labor-saving methods are going forward at a remarkable rate. Other elements contributing to increased productivity include improved mine management and layout, the tendency toward developing mines to the optimum size, shutdown of less efficient mines, removal of operations to better mine locations, and more effective use of labor. This change comes at a time when the operators are endeavoring to increase per capita productivity and to reduce costs, owing to a loss in markets to other fuels, competition between producers of coal, and the ills arising out of the fact that the industry has an overcapacity. It is in the States (such as Illinois, Indiana, Kansas, Missouri, Montana, North Dakota, and Oklahoma [3]) in which a very considerable proportion of the coal is mined by stripping and in which no immediate physical limit to this kind of mining is seen, that labor displacement because of power equipment promises to be increasingly severe. The effects of this displacement in such States will, however, be reflected in the mine-labor statistics of the whole industry. Moreover, as the size, range, power, and efficiency of mechanical equipment is further improved and an increasing proportion of the coal mined is stripped, the inroads upon the volume of human labor needed in the industry will be more extensive.

Strip Mining

Bituminous coal mined from the surface, by stripping methods, amounted to 19,842,359 tons, or 4.3 per cent of the total product, in 1930. This constitutes fifteen times the total production stripped in 1914, the first year for which statistics are available, and seven times the 1915 total. Output per man per day in power strip pits increased from 5.1 tons in 1914 to 16.2 tons in 1930, as compared with an increase from 3.71 to 5.06 tons for the bituminous industry as a whole. The rise in output per man per day was 217.6 per cent for stripping operations and 36.4 per cent for all operations during this 17-year period. Table 7 shows statistics of strip mining for the years 1914 to 1930.

From the figures in Table 7 it is seen that the rate of increase in output of strip mines per man per day has been greatly accelerated since 1920; part of this seeming general increase, however, is due to the high per capita output of a large stripping operation in the Rosebud field of Montana, where in 1928 an average of 48 tons of coal per man per day was mined.

[3] In 1930 the per cent of total product mined by stripping was as follows: Illinois, 11.4; Indiana, 34.2; Kansas, 43.1; Missouri, 53.7; Montana, 35.2; North Dakota, 54.2; and Oklahoma, 13.0.

TABLE 7.—BITUMINOUS COAL MINED BY STRIPPING OPERATIONS OF ALL TYPES, 1914 TO 1930[1]

Year	Number of power shovels	Quantity mined by stripping		Average tons per man per day[2]	Year	Number of power shovels	Quantity mined by stripping		Average tons per man per day[2]
		Net tons	Per cent of total output				Net tons	Per cent of total output	
1914	48	1,280,946	0.3	5.1	1923	442	11,940,134	2.1	9.3
1915	87	2,831,619	.6	5.9	1924	420	13,606,954	2.8	9.9
1916	111	3,932,395	.8	6.7	1925	389	16,870,907	3.2	11.2
1917	182	5,789,977	1.0	6.6	1926	410	16,922,695	3.0	11.2
1918	276	8,288,245	1.4	7.0	1927	455	18,378,166	3.6	11.0
1919	287	5,634,951	1.2	6.4	1928	415	19,788,577	4.0	13.0
1920	312	8,859,553	1.5	7.2	1929	411	20,268,099	3.8	14.1
1921	279	5,057,483	1.2	8.3	1930	341	19,842,359	4.3	16.2
1922	379	10,208,884	2.4	8.1					

[1] Includes coal stripped by horses and in mines combining stripping and deep-mining methods in the same operation.
[2] Power strip pits only.

The rise in productivity that has taken place thus far in stripping operations is attributed by writers on the subject[4] to marked mechanical improvements, among them being the almost universal adoption of the power-loading machine, a revolving shovel following directly behind the stripping shovel. Also, larger and more powerful shovels are being used, the average tonnage handled per shovel having increased from 164 tons per day in 1915 to 276 tons in 1928; for the 15 largest operations the average rose in the same period from 230 to 416 tons. At the same time the shovels have been made more flexible in operation. The electrically-driven shovel is supplanting the steam shovel in the newer pits, and more than one-third of the output is now stripped by electric equipment.

Flexibility of operation has been furthered by the adoption of caterpillar traction. The use of caterpillar mountings facilitates the speedy removal of shovels into new locations and keeps to a minimum the time lost in moving the machinery.

The large-type drag line has also been introduced, by means of which the overburden is removed or the waste is stacked, making way for the shovel to cut the coal.

Proper haulage equipment, tracks, and location of tipple so as to minimize the haul of the mined product have all been the subject of special study. With regard to the haulage systems the effort has been to use a minimum of manual labor, with the result that the moving of track, an operation that must be performed frequently, is now done in most pits by means of caterpillar tractors that either shove or pull the track to the place where needed.

The use of liquid oxygen explosives for blasting the overburden has served to increase efficiency. Where coal, as well as the overburden, is blasted it has been found effective before shooting the coal to channel the coal seam by means of a device similar to a coal undercutting machine. In this way the explosive becomes more effective and a relatively larger proportion of lump coal is obtained than would be possible without resort to channeling.

[4] U. S. Department of Commerce, Bureau of Mines, Economic Paper 11: The economics of strip coal mining, by O. E. Kiessling, F. G. Tryon, and L. Mann. Washington, 1931.

Improvements in drainage have made it possible to operate at strip mines without frequent stoppages because of weather conditions. The fact that shovels may be used two or even three shifts a day, if the market warrants, is another advantage. In strip mines this may be done without seriously upsetting the life of the mining community, because a large body of workers is not needed to keep the mine in operation.

Increased Use of Loading Equipment

The loading of coal on mine cars for removal from the working place has always constituted one of the most labor-consuming processes connected with mine operation. Loaders have always formed the most numerous class among mine laborers, constituting 58.5 per cent of all underground laborers in over 1,900 mines for which the United States Coal Commission secured earnings data in 1921. Accordingly, the perfecting of equipment to reduce the amount of labor needed for this process is a technological advance that presages increasing man-day productivity and a further reduction in labor requirements.

TABLE 8.—PROPORTION OF OUTPUT OF BITUMINOUS COAL MECHANICALLY LOADED, 1923 TO 1930 [1]

Year	Product loaded by mechanical loading proper				Product handled by pit-car loaders and hand-loaded conveyors	Total mechanically loaded	
	Number of mines using mechanical loaders	Number of machines in use	Amount loaded				
			Tons	Per cent of total production		Tons	Per cent of total production
					Tons		
1923	60	125	1,879,726	0.3			
1924	83	219	3,495,522	.7			
1925	95	340	6,243,104	1.2			
1926	131	455	10,022,195	1.8			
1927	(2)	(2)	(2)	(2)			
1928	176	397	14,559,000	3.1	7,000,000	21,559,000	4.5
1929	127	488	19,291,000	3.8	18,571,000	37,862,000	7.4
1930	102	545	23,338,000	5.2	23,644,000	46,982,000	10.5

[1] Includes coal loaded by elevating conveyors of the type of the Jeffrey pit-car loader and 1 or 2 others.
[2] Not available.

The loading of coal by motive power is the latest of the mechanical methods introduced in the industry and is of the most far-reaching importance for the future, since loading equipment is adaptable to conditions in mines producing a large proportion of the national supply of bituminous coal. While the coal loader and conveyor, as experimental features of individual mines, date back 25 to 30 years [5] it was not until 1923 that the United States Bureau of Mines found the movement toward commercial application of loading equipment sufficiently widespread to make note of the tonnage loaded by mechanical means. In that year less than 2,000,000 tons of coal were mechanically loaded as compared with a total of 23,338,000 tons in 1930. Taking the tonnage loaded by machine and that handled by pit-car loaders and hand-loaded conveyors, the total accounted for in 1930 amounted to 46,982,000 tons, or 10.5 per cent of the total produced.

[5] American Mining Congress. Year Book on Coal Mine Mechanization, 1928, by G. B. Southard, p. 261.

Statistics showing the development of mechanical loading appear in Table 8. A distinction is made between loading machines and conveyors, the loading machine actually picking up the coal and the conveyor carrying off the coal that has either fallen or been placed on it.

The figures show a significant rise not only in the tonnage mechanically loaded but also in the number of mines using mechanical loaders and the number of such loaders in use. Up to the present, mechanization of this character has made considerable progress in Illinois, Pennsylvania, Indiana, Kentucky, West Virginia, Alabama, Montana, Utah, and Wyoming. In Illinois alone 22,846,000 tons were mechanically loaded in 1930 out of the United States total of 46,982,000 tons, and Pennsylvania ran second with 7,035,000 tons. The importance of mechanical loading in Montana, Illinois, Wyoming, Indiana, Utah, and Alabama is shown by the fact that 57.0, 48.0, 47.7, 32.3, 20.3, and 13.4 per cent, respectively, of the 1930 production was mechanically loaded.

Types of equipment in use.—A variety of equipment for mechanical loading has come on the market. Depending upon roof conditions, thickness of the coal seam being mined, the pitch at which the coal lies, and numerous other physical and engineering factors, the choice of the kind of equipment to be purchased means much in the ultimate success of mechanical loading. The three more or less standard types of equipment are the scrapers, the conveyors, and the mechanical loaders.

Scrapers (which are in reality scoops) are of two sizes, the larger and more powerful one being built to dig out the coal as well as to load it, while the smaller loads only. The motive power for the scraper is obtained from a hoist to which the scraper is attached. Where mobility is especially important the hoist may be mounted on a truck or a location may be chosen from which the scraper may be directed into a number of rooms by means of ropes and sheaves. In both instances the scraper and ropes are moved from one working place to another by hand, as the equipment is light in weight. Scrapers are successfully used under widely varying physical conditions, i. e., in 2 to 8 foot seams and where roof conditions are good or bad.

Conveyors are numerous in design and vary in size and mobility. They are of three types—shaking conveyors, drag-chain conveyors, and belt conveyors. The ordinary, or face, conveyor is placed parallel to the coal face before the coal is shot down, in which case some coal falls onto the conveyor when dislodged by the shot and the rest is shoveled on by hand, the coal then being discharged onto a haulage conveyor and thence onto the waiting mine car. The shaker conveyor, a combination of loader and conveyor, consists of a shoveling device attached to a shaker conveyor, the shaking motion resulting in the coal being picked up as the shovel passes under it.

The physical limitations of the coal seams exert a greater influence on the use of the mechanical loaders than is the case with either the scrapers or conveyors. The mechanical loaders, however, have the advantage of greater mobility. They are designed to shovel coal from the mine floor into cars, they travel under their own power, and they may be used to load out one or more working places per shift. Some loaders serve the twofold purpose of cutting as well as loading coal. Successful among the loading machines are those equipped

with caterpillar type of traction to provide for movement about the mine floor. A set of four detachable track wheels may be substituted, if desired. A common type of loader has a front conveyor that may be adjusted up and down to suit floor conditions in lifting the coal, and a rear conveyor, also adjustable to the level of the mine cars, for dumping.

Changes in productivity.—In the absence of statistics such as exist for strip mining showing the productivity rates in all mines where loading is mechanized, the Bureau of Labor Statistics has obtained, through direct inquiry from a group of operators, information as to the changes in productivity rates since hand shoveling has been partially or almost entirely superseded by mechanical loading. This inquiry covered a few relatively large mines in Illinois, Pennsylvania, and Wyoming, where mechanical loaders and conveyor systems are in use, producing about 5,653,000 tons of coal in 1931 and having an average of 4,000 employees on their combined pay rolls. Sufficiently detailed information was furnished to make it possible to compare general productivity rates in the respective mines under hand loading and subsequent to mechanization of loading in most instances, and also to show the differences in the tonnages being loaded by various loading and conveyor crews per man per day in relation to each other and to the hand loader. The mines studied were chosen for location, physical characteristics (especially seam thickness), and the kind of equipment in use. Among the mines that are included are a number which are only partly mechanized as well as those fully mechanized. While it is true that the averages of output per man per day were higher in most instances than the average for the United States prior to mechanization, these mines had typical rates of output for the particular States in which they are located.

Table 9 shows output per man per day for typical periods before and after mechanization of loading and the per cent of increase or decrease in productivity that has resulted from the change. Of eight mines for which statistics are included in the table, four, i. e., A, B, C, and D, are fully mechanized with respect to loading except for incidental clean-up work. In the remaining four mines, i. e., E, F, G, and H, substantial tonnages are still loaded by hand. In all cases the averages of output are for a working-day of eight hours or a small fraction higher.

Economies accomplished since the advent of mechanical loading in these mines have resulted in an average increase in output per man per day of 46.8 per cent for all the mines in the sample, weighting on the basis of the total tonnage produced in these mines and therefore bringing the average increase to a lower percentage than would result if the number of persons engaged in hand loading and the tonnage loaded by hand were excluded. The weighted average increase in productivity for the four fully mechanized mines A, B, C, and D was 65.7 per cent.

Although it can not be stated with certainty that the increase in productivity found to have taken place in this sample group of mines is characteristic of what has occurred in all mines using mechanized loading and conveyor systems, it is believed that the increase here shown is not unduly high. In fact, the United States Coal Commission found in 1923 that output per man per day increased 80 per cent when loading was mechanized and costs fell by 40 per cent. It should

also be noted that the output per man per day in the mines for which records have been obtained would in certain instances be higher were it not for the adverse effects of the depression. In one mine, for example, it was stated that output per man per day is now 20 per cent below what it was before the full force of the depression hit the industry.

TABLE 9.—CHANGES IN PRODUCTIVITY RATES UNDER MECHANICAL LOADING AS COMPARED WITH HAND LOADING IN EIGHT INDIVIDUAL MINES

Mine	Thickness of seam	Output (tons) per man per day		
		Before mechanization	After mechanization	Per cent of change
Mines fully mechanized:				
Mine A	6 feet or over	7.0	13.5	+92.9
Mine B	do	4.9	8.8	+79.6
Mine C	do	7.8	12.2	+56.4
Mine D	do	5.8	8.7	+50.0
Weighted average				[1] +65.7
Mines partially mechanized:				
Mine E	Under 6 feet	[2]	5.7	[3] +20.0–25.0
Mine F	do	[2]	4.9	[3] +20.0–25.0
Mine G	6 feet or over	5.4	5.9	+9.3
Mine H	do	8.4	7.4	−11.9
Weighted average, all mines				[1] +46.8
Weighted average, mines A–G				[1] +53.4

[1] Weighted on basis of production after mechanization and per cent of increase in productivity.
[2] No data.
[3] Operator's estimate.

As between the individual mines there has been little uniformity in the rate of increase obtained through mechanization. In mine A, for example, output per man per day increased by 92.9 per cent, which means the displacement of practically one man of every two, whereas in mine D the increase was 50 per cent. Again, while the average output for mine A was only 21 per cent higher than in mine D prior to mechanization, it was 55 per cent higher after the loading was mechanized.

The figures in the table seem to indicate that mechanization produces better results in mines where the coal seam is thick—a natural result, since in such mines larger passages are opened up in mining, making the moving of heavy loading equipment relatively easier. The increases shown in Mines E and F are of special interest because these are mines where comparatively thin coal is worked, under generally difficult conditions.

Also, the increase in productivity per man per day has been greater in the mines where most of the product is loaded mechanically (A, B, C, and D) than where only a part of the coal is so loaded (E, F, and G).

Especially striking in Table 9 is the 11.9 per cent decrease that has occurred in output per man per day in Mine H since mechanized loading has been adopted. In this mine the productivity per man-day was high even before mechanization (8.4 tons) but has lagged recently, owing to a combination of adverse physical factors encountered. However, the management of this mine is of the opinion that the outlay for mechanization was justified, even in the face of this

reduction in the productivity rate, since without mechanized loading the man-day output might have fallen to such a low level as to make continuance of work economically impossible.

In Table 10 are presented averages of output per man per day for loading-machine and conveyor-system crews. The figures must be used with caution, owing to the fact that the make-up of the crew varies from mine to mine. Supervision, timbering, and tracklaying may be chargeable to the group in one mine and not in another. For example, the loading crew in one mine consists of 7 men—a cutter, a driller and shooter, a loader operator and helper, a nipper who runs the motor, a driver, and a face man. In another mine the crew is composed of 13½ men, as follows: A foreman (half time), an operator and helper, 2 cutting machine men, 1 shearing machine man, 2 drillers and shooters, a motorman, a triprider, a trackman, a timberman, and 2 clean-up men. Also, on conveyor systems differences occur, only the time of the two loaders being charged to the conveyor in one mine. In another mine the "conveyor crew" consists of 8 men (working on two 40-foot faces) each of whom not only does his own loading, but also cuts and shoots the coal.

TABLE 10.—OUTPUT PER MAN PER DAY OF LOADING-MACHINE AND CONVEYOR CREWS IN 11 INDIVIDUAL MINES

Mine	Output (tons) per man-day		Mine	Output (tons) per man-day	
	Loading-machine crews	Conveyor crews		Loading-machine crews	Conveyor crews
Mine A	29.7		Mine G	12.2	8.0
	16.3				15.0
Mine B	13.6		Mine H	14.6	12.4
	20.0				15.0
Mine C	29.3		Mine I	16.1	19.4
Mine D	20.4	16.1	Mine J	18.8	
Mine E		[1] 10.6		38.9	
Mine F		12.8	Mine K	28.7	
				31.2	

[1] Conveyors and loading machines

According to these rough measures the highest averages of output per man per day were obtained in the mines in which the thickest coal was mined. This is easily understood when one realizes that heavy-duty loaders of great size and capacity may be used economically in locations where the roof is high and where some coal may be left in place, giving a solid floor and safe roof.

Except in Mine I, the output of conveyor crews is below that of loading crews, ranging from 8 0 to 19.4 tons per man per day as compared with a range of 12.2 to 38.9 tons per man per day for loading-machine crews. With the loading machine hand shoveling is unnecessary, while with conveyor systems the men still shovel the coal which does not fall onto the conveyors but lift it shorter distances than is necessary where the product must be placed in mine cars by human labor. In Mine I, where the output of loading-machine crews is 16.1 tons and that of conveyor crews, 19.4 tons, the conveyor loading is done in the more favorable locations in the mine.

In relation to the performance of miners, hand loaders and shot-firers (the labor group most nearly comparable with the machine-

loading and conveyor crews) the output per man per day of both these crews seems high. In the mines visited it was found that 5 to 10 tons per man per day constituted an average day's work under hand-loading conditions, the range being due to the fact that in some mines these workers lay their own track and do some timbering, but do not do so in others.

Cutting by Machine

Machine cutting is among the oldest of the mechanized processes in coal production, and is fast becoming a general practice except where conditions make its use unnecessary or unwise. In 1930, of all the coal mined 77.5 per cent was cut by machine, 11.9 per cent was mined by hand, 6.2 per cent was shot off the solid, 4.3 per cent came from strip pits, and 0.1 per cent was mined in ways not specified. According to conclusions reached by the Bureau of Mines a considerable percentage of the coal still shot off the solid is being brought down in this manner, owing to the inability of the employers and mine workers to agree on a satisfactory differential between the wage rate for pick mining and for machine cutting with hand loading. Thus the upper limit of development in the machine cutting of coal has not as yet been reached.

In Table 11 are shown the percentages of total product mined by machine, and the average output per machine, by years, from 1910 to 1930.

TABLE 11.—PER CENT OF TOTAL OUTPUT OF BITUMINOUS COAL CUT BY MACHINE, AND AVERAGE OUTPUT PER MACHINE, 1910 TO 1930

Year	Per cent cut by machine	Average output per machine (net tons)	Year	Per cent cut by machine	Average output per machine (net tons)	Year	Per cent cut by machine	Average output per machine (net tons)
1910	41.7	13,127	1917	55.5	17,777	1924	69.5	18,021
1911	43.9	12,854	1918	55.9	17,545	1925	70.6	20,895
1912	46.8	13,763	1919	59.2	14,559	1926	71.7	23,526
1913	50.7	14,801	1920	59.8	17,788	1927	72.2	21,511
1914	51.7	13,231	1921	65.6	13,901	1928	73.8	24,224
1915	55.0	15,501	1922	63.2	13,067	1929	75.4	27,398
1916	56.5	17,514	1923	66.9	17,779	1930	77.5	25,457

The figures indicate that the movement toward greater use of coal-cutting equipment was particularly rapid in the period 1910 to 1913 when the percentage rose by 9 points, and again in 1920 to 1924 when the increase was nearly 10 points. These increases, occurring in 4 and 5 year periods, respectively, contrast with a 9-point rise in the 8-year period 1913 to 1920 and one of 8 points in the 7 years between 1924 and 1930. The increase in machine-cut coal from 41.7 per cent of the total in 1910 to 77.5 per cent in 1930 is spectacular.

Seven coal-producing States in 1930 record percentages for machine-cut coal higher than the national average. These States are Illinois (78.0 per cent), Kentucky (eastern, 91.8 per cent and western, 89.6 per cent), Michigan (99.4 per cent), Ohio (91.8 per cent), Utah (84.1 per cent), Virginia (86.4 per cent), and West Virginia (87.1 per cent). The lowest percentages are for Kansas (7.6) and Texas (2.6), where large amounts of the annual product are still being shot off the solid and where considerable strip mining is done.

Five types of coal cutters are in use in the American bituminous-coal industry: (1) Rotary boring machines, (2) rotary bar cutters, (3) rotary disc machines, (4) endless chain machines, and (5) puncher machines. According to Americana, edition of 1927, chain machines practically divide the field with puncher machines in this country, with a tendency toward adoption of the chain for new installations. The chain machine may be described as a small motor with a long shaft which runs from one side of the motor and carries an endless chain belt with spikes or blades on the chain. The blades are removable and may be replaced when dulled. By means of this machine the coal is undercut, drill holes are then made at the top of the layer of coal, the dynamite is placed, fuses set, and the coal shot down. Displacement of air-driven cutting machines by electrical cutters has been almost completely effected.

It is seen that between 1910 and 1929 the average annual output per machine in use more than doubled as compared with a 42 per cent increase in production per man per year (see Table 6). For 1930 both declined, in line with the reduction in working time.

Allowing for any increase that may have occurred in the time that cutting machines are in use, there is every indication that a share of the increase in coal cut per machine in use is attributable to improved technology; and, although there is no way of estimating how much labor was displaced through the change to machine cutting, the cutting machine must be counted among the tools that have reduced employment in the industry. While the increase in production per machine has been irregular, being influenced among other factors by the length of the working year, the averages indicate that the efficiency of machine cutting has been increasing in recent years and that improved equipment or handling of equipment or both will continue to contribute to raising the productivity of mine labor.

Mechanized Haulage Systems

Significant in the field of mine mechanization has been the change from haulage by mules to haulage by motor power. This tendency was well under way in 1924 when the United States Bureau of Mines inquired into the subject and found that 3,585 mines, producing 88 per cent of the total tonnage, reported use of locomotives of some type in connection with underground haulage. It was further found that a preference for electric haulage existed, with 3,377 mines, producing 85.6 per cent of the output, having one or more electric locomotives. The total number of locomotive installations amounted to 14,723, of which 14,280 were electric, 85 compressed air, 226 gasoline, and 132 steam. Animals were employed to the total of 36,352, and there were 649 rope-haulage units.

Mechanization of haulage has made the greatest headway in Virginia, Kentucky, West Virginia, Alabama, Pennsylvania, Michigan, and Washington, where from 62.8 to 32.0 per cent of the tonnage was produced in mines using only locomotive haulage in 1924. The least progress toward mechanization of haulage was shown for the tier of States from North Dakota to Texas. The introduction of mechanical haulage, however, is not necessarily an index of progress or lack of it, for much depends upon the physical conditions in the mines. In a mine working a thin seam, gathering locomotives may have been installed because mules could not be used without cutting away strata

other than coal to make the necessary passageway. Elsewhere it may be the custom for men to push cars to the coal face and back to the locomotive-equipped main haulage way, thus making the use of animals unnecessary. In both instances the particular mines affected would show an excellent record as regards haulage mechanization because of the absence of mules, but in the second instance the net result might be a lower rate of productivity than would be possible with the use of mules.

It is impossible to trace statistically the increase in productivity rates in bituminous-coal mining, due to the introduction of mechanical haulage, as the necessary historical data do not exist.

Mechanical Cleaning

At the end of the year, 1923, the per cent of total tonnage cleaned by wet and pneumatic methods at mines was 3.8, or exactly the same as at the end of 1910. In the period between 1910 and 1914 the percentage rose to 4.8 and reached a maximum of 6.2 in 1929 after a gradual yearly rise. In addition, 4,527,000 tons of coal were washed at other central washeries in 1929, bringing the product mechanically cleaned to 7.0 per cent of the total production. The statistical record of mechanical cleaning appears in Table 12.

TABLE 12.—TONNAGE OF BITUMINOUS COAL MECHANICALLY CLEANED, 1910 TO 1930

Year	Amount cleaned at mines				Amount cleaned at other central washeries	Grand total
	Wet methods	Pneumatic methods	Total			
			Tons	Per cent of national production		
	Tons	*Tons*				
1910	16,035,387		16,035,387	3.8	(1)	(1)
1911	(1)		(1)	(1)	(1)	(1)
1912	17,538,572		17,538,572	3.9	(1)	(1)
1913	22,069,691		22,069,691	4.6	(1)	(1)
1914	20,264,141		20,264,141	4.8	(1)	(1)
1915	20,873,727		20,873,727	4.7	(1)	(1)
1916	22,922,218		22,922,218	4.6	(1)	(1)
1917	25,483,696		25,483,696	4.6	(1)	(1)
1918	22,017,293		22,017,293	3.8	(1)	(1)
1919	16,884,062	(2)	(2)	[3] 3.6	(1)	(1)
1920	17,984,289	(2)	(2)	[3] 3.3	(1)	(1)
1921	13,628,724	(2)	(2)	[3] 3.4	(1)	(1)
1922	(1)	(1)	(1)	(1)	(1)	(1)
1923	20,140,385	(2)	(2)	[3] 3.8	(1)	(1)
1924	(1)		(1)	(1)	(1)	(1)
1925	(1)		(1)	(1)	(1)	(1)
1926	(1)		(1)	(1)	(1)	(1)
1927	21,119,441	3,650,584	24,770,025	4.8	2,922,022	27,692,047
1928	[4] 21,188,911	3,786,185	24,975,096	5.0	[4] 3,807,943	28,783,039
1929	26,772,000	5,844,000	32,616,000	6.2	4,527,000	37,143,000
1930	(1)	(1)	(1)	(1)	(1)	(1)

[1] No data.
[2] Data on pneumatic cleaning, which began in 1919, are not available for 1919 to 1923. The tonnage in those years, however, was small.
[3] Includes an estimate for the tonnage cleaned pneumatically.
[4] Revised figures.

The modern cleaning plant, where installed, has superseded less effective methods of cleaning coal. Installation of a cleaning plant eliminates the picking table (at which boys remove the impurities

from the coal as it passes on a conveyor), and reduces considerably the time spent by the miners in throwing aside waste. No study has been made to show whether more or less than the equivalent of the labor thus saved, is required for the operation of the cleaning plant.

In Alabama 76.8 per cent of the output in 1929 was mechanically cleaned, or double the percentage for Washington (38.4), the State with the second highest percentage of mechanically cleaned coal. Because Alabama coals, in an unwashed condition, were unfit for use in the steel manufacturing establishments of Birmingham, local operators began cleaning their coal many years before those in other States. As time has gone on, the cleaning plants in that State have become more efficient and have required less labor, while in other States, where mechanical cleaning equipment has been but recently adopted, operators have made the transition from crude methods of cleaning to modern plants that must be newly staffed.

As mechanical cleaning becomes increasingly common, and this development it appears will accompany the extension of mechanical loading, it may be expected that an expansion in number of surface workers will occur, followed, as technological improvements are made, by a gradual contraction in the labor needed per unit of coal mechanically cleaned.

Concentration of Production

The increased use of machinery has made it necessary for owners to operate their mines by means of factory methods, as the whole productive process must be synchronized in order to obtain the maximum use from expensive machine installations. Work must be concentrated and the working place must be mined out quickly to save the cost of timbering and at the same time prevent falls of roof. Thus there is no place in the mechanized mine for the single miner working in a room, perhaps with an assistant, isolated from the remaining force, setting his own pace and leaving the mine when his stint is finished, regardless of time.

The movement toward mechanization had its inception long before the present depression overtook the industry. Loss of markets has led operators to extend the use of mechanical equipment, however, and the process of concentration of work at the coal face has been no more marked than has the tendency toward concentration of production in fewer and larger mines. While there are no statistical means available to show that better mines are continuously worked or that tons per man per day tend to increase with size of working, the inference is that this is true since in the period of increasing productivity through which the industry is passing fewer mines have been producing than in earlier years and the percentage of tonnage taken from large mines (those producing 200,000 tons and over annually) has increased. Certainly the growth in number of large mining units would not have taken place had not the large mine been found more productive than the smaller one.

The reduction that has taken place in the number of mines in operation has already been shown (Table 1), the number having declined from 9,331 in 1923 to 5,891 in 1930. Among these 3,440 commercial mines that ceased to produce between 1923 and 1930 there were some that were forced to suspend operation because freight rates were disadvantageous, specific markets were lost, or because,

in the case of consumer-owned mines, it was cheaper to buy coal from competitors than to mine it; more especially, however, the shutdowns are traceable to competitive disadvantages or physical or managerial difficulties.

For the mines that have remained in the producing field, the per cent of the total output of coal that is produced in mines of specified size is shown for the years 1910 to 1930 in Table 13.

TABLE 13.—PER CENT OF TOTAL BITUMINOUS-COAL OUTPUT PRODUCED IN MINES OF SPECIFIED SIZE, 1910 TO 1930

Year	Class 1 mines			Class 2 mines (100,000 to 200,000 tons)	Class 3 mines (50,000 to 100,000 tons)	Class 4 mines (10,000 to 50,000 tons)	Class 5 mines (under 10,000 tons)	All classes
	Over 500,000 tons	200,000 to 500,000 tons	Total					
1910			46.0	25.7	16.5	10.2	1.6	100.0
1911			44.2	28.4	15.0	10.7	1.7	100.0
1912			49.2	25.0	14.8	9.5	1.5	100.0
1913			50.6	24.8	14.4	8.9	1.3	100.0
1914			43.7	28.7	15.7	10.4	1.5	100.0
1915								
1916								
1917			51.9	23.5	13.6	9.4	1.6	100.0
1918			48.6	22.7	15.1	11.6	2.0	100.0
1919			37.6	26.0	18.2	15.4	2.8	100.0
1920			42.1	25.3	16.1	14.6	1.9	100.0
1921			39.1	27.8	17.1	13.5	2.5	100.0
1922			31.5	28.0	18.5	18.4	3.6	100.0
1923			47.2	23.2	15.0	12.2	2.4	100.0
1924	18.3	30.7	49.0	23.8	14.1	10.9	2.2	100.0
1925	20.9	32.8	53.7	22.7	12.4	9.4	1.8	100.0
1926	23.6	34.5	58.1	21.0	10.9	8.3	1.7	100.0
1927	18.1	36.7	54.8	22.3	12.3	8.9	1.7	100.0
1928	23.3	37.4	60.7	19.4	10.4	7.7	1.8	100.0
1929	29.6	35.6	65.2	17.9	9.1	6.3	1.5	100.0
1930	27.7	35.4	63.1	18.6	9.9	6.7	1.7	100.0

It is seen that, prior to the war period, class 1 mines, representing the largest individual workings, were contributing approximately half of the annual tonnage. As would be expected, this percentage dropped in the postwar years, when the demand for bituminous coal was active, and many new mines were worked. Since the reaction set in, however, and with the shrinking market demand, the percentage furnished by class 1 mines has risen considerably above prewar levels to a maximum of 65.2 per cent of the total produced in 1929 but falling to 63.1 per cent in 1930. Not only has the large mine become of increasing importance but much of the increase has been for mines producing above 500,000 tons rather than among those producing 200,000 to 500,000 tons. The statistics further indicate that of the smaller mines (classes 2 to 5), the smallest (class 5) have maintained their quota of total production more effectively than the mines of the intermediate sizes.

Shift to New Mining Locations

Under the system of free competition operative in the coal industry it is natural that mining development should gravitate to sections offering the most profitable returns on the investment. This is exemplified in the opening up of seams adapted to strip mining and the increasing importance of that type of mining. Of importance also in increasing man-day productivity have been shifts from old into new locations where a twofold advantage accrues to the operator in

that he has untouched resources to draw upon and may make use of modern methods of mine layout and improvements in mining technology to secure the best working plan for his undertaking. The opening up of new mines is indicated by the fact that 58 per cent of the tonnage produced in 1926 was taken from mines opened in 1910 and subsequent years, and the average age of mines in 1926 was 12 years. It must not be assumed, however, that all new mines brought into production are characterized by thicker seams, fewer partings, better roof, etc., than are many mines now partly worked out but still yielding good returns. At the same time these newer workings have a decided natural advantage over certain partially exhausted mines and are displacing them, an "exhausted" mine being regarded as one not necessarily completely worked out but one that, under present competitive conditions, does not yield a sufficiently high return in tonnage per unit of labor expended. The following table exemplifies what occurs in a county when this stage in production is reached:

TABLE 14.—OUTPUT AND MAN-DAY PRODUCTIVITY OF BITUMINOUS-COAL MINES IN TWO COUNTIES, 1915 AND 1930

Year	Net tons produced	Men employed	Days worked	Output (tons) per man per day
Bureau County, Ill.:				
1915	1,202,698	3,084	186	2.10
1930	13,324	58	171	1.34
Westmoreland County, Pa.:				
1915	29,892,561	26,726	236	4.74
1930	14,212,624	13,915	192	5.31

The two counties chosen represent widely varying conditions, the yield per man per day in Bureau County having been low in 1915 (2.10 tons) and that in Westmoreland County relatively high (4.74 tons). In Bureau County it appears that coal production was practically abandoned in 1930, obviously because the return did not justify the necessary investment. In Westmoreland County it was possible to raise the productivity rate from 4.74 tons per man per day to 5.31 tons, between 1915 and 1930, by drawing upon only the best mines, although production was cut to half the former tonnage.

The abandonment of less efficient mines is going on to an indeterminate extent within States, but the bituminous-coal resources of the United States are so vast and the technological improvements so effective in raising the productivity rates in general that except for small samples it is impossible to trace the effects of retarding physical influences.

There has been some shifting in the proportion of total tonnage furnished by the various large coal-producing States in the 21-year period covered by this study, and differences exist as between States in the rate of increase in output per man per day. Table 15 gives an indication of how changes in the source of production may have accounted in part for the increase in the national average of output per man per day. This table shows, for Illinois, Indiana, Kentucky, Ohio, Pennsylvania, and West Virginia, the total tonnage produced and the output per man per day in 1910, 1929, and 1930 and the percentage change in production and output as between 1910 and

the two subsequent years. This group of States produced 78 per cent of the total output in 1910 and 83 per cent in each of the other two years.

TABLE 15.—CHANGES IN PRODUCTION AND MAN-DAY OUTPUT IN THE SIX LARGEST BITUMINOUS-COAL PRODUCING STATES, 1910 TO 1930

State	Production					Output per man per day				
	Tons			Per cent of change		Tons			Per cent of change	
	1910	1929	1930	1910 to 1929	1910 to 1930	1910	1929	1930	1910 to 1929	1910 to 1930
Illinois	45,900,000	60,658,000	53,731,000	+32.2	+17.1	3.95	6.05	6.42	+53.4	+62.5
Indiana	18,390,000	18,344,000	16,490,000	−.3	−10.3	3.67	7.00	7.56	+90.7	+106.0
Kentucky	14,623,000	60,463,000	51,209,000	+313.5	+250.2	3.26	4.64	4.83	+42.3	+48.2
Ohio	34,210,000	23,689,000	22,552,000	−30.8	−34.1	3.61	4.64	4.67	+28.5	+29.4
Pennsylvania	150,522,000	143,516,000	124,463,000	−4.7	−17.3	3.61	4.73	4.82	+31.0	+33.5
West Virginia	61,671,000	138,519,000	121,473,000	+124.6	+97.0	3.94	5.34	5.61	+35.5	+42.4

Broadly speaking, the States for which figures are shown in Table 15 may be regarded as in two classifications; that is, old and new producing fields, the four Northern States—Illinois, Indiana, Ohio, and Pennsylvania—being regarded as old fields and the Southern States—Kentucky and West Virginia—as new fields. There is a further distinction between these two groups, working conditions in the Northern States having been regulated under agreement with the union more consistently than in the South. With the exception of Illinois, the older producing States were responsible for less coal in both 1929 and 1930 than in 1910, while the gains in tonnage from West Virginia were large and those in Kentucky even larger on a percentage basis.

The figures in Table 15 show great uniformity in output per man per day in 1910. In that year Kentucky had the lowest rate (3.26 tons), Indiana, Ohio, and Pennsylvania had practically identical rates (3.67, 3.61, and 3.61 tons, respectively), and the rates were highest in Illinois and West Virginia (3.95 and 3.94 tons, respectively). Comparing the output per man per day, it is evident that the greatest rise took place in Indiana and Illinois, followed by Kentucky and West Virginia. Ohio and Pennsylvania gained in output per man per day relatively less than the other four States. While these figures indicate that the new fields in Kentucky and West Virginia afforded the opportunity for an increase in productivity greater than that which occurred in Ohio and Pennsylvania, these southern States did not experience an increase in output per man per day commensurate with that in Indiana and Illinois, where the introduction of modern strip-mining machinery and mechanical loading, on a wide scale, resulted in raising the productivity rates well above those for other States. In West Virginia in 1930 the output per man per day amounted to 5.61 tons for all mines, there being no strip mining carried on in this State, as compared with 6.42 tons in Illinois and 7.56 tons in Indiana.

It would appear that the shift to newer fields has resulted in raising the productivity rate in bituminous-coal mining, but that the rise so brought about is not as potent a factor as mechanization in the displacement of mine labor.

Effect of Mechanization and Other Factors Upon Employment

As has already been seen, the man-day output of all mine labor increased from 3.46 net tons in 1910 to 4.85 net tons in 1929 and to 5.06 net tons in 1930 (Table 4); this is an increase of 40.2 and 46.2 per cent, respectively, over 1910. During the same period the number of persons employed dropped from 555,533 to 502,993, and then to 493,202. Had the man-day output remained at the same level as in 1910, 722,584 persons, instead of the 493,202 actually employed, would have been required to produce the 1930 tonnage in 187 days (the average number of days of operation in that year); while for the 1929 output 706,032, instead of 502,993 persons, would have been required.

Many of the improvements in methods and mechanization can not be measured statistically in relation to their effect on employment opportunities. For the strip mines and the mines using mechanical loaders, however, sufficient data are available for the purpose. These two classes of mines have high rates of productivity, their output per man-day in 1930 being 13.92 and 7.16 tons, respectively, whereas the output per man-day of all the bituminous mines in 1930, excluding these two classes, was only 4.76 tons. At this latter rate of productivity (4.76 tons) 525,240 persons would have been required for the 1930 production instead of the 493,202 actually employed.

The man-days actually worked in all mines in 1930 numbered 92,228,774, whereas without these strip mines and mines with mechanized loading, 98,219,880 man-days would have been necessary, a difference of approximately 6,000,000 man-days.

TABLE 16.—EMPLOYMENT AND PRODUCTION OF SPECIFIED CLASSES OF MINES AND OF ALL MINES, 1930

Item	Strip mines	Mines with mechanized loading	All mines except strip and mechanized mines	All mines	
				Actual data	Assuming same per capita output as column 3
	1	2	3	4	5
Number of men employed	8,164	[1] 36,454	[1] 448,584	493,202	525,240
Number of days mines operated	185	[2] 180	[1] 188	187	187
Number of man-days worked	1,510,340	6,561,720	84,156,714	92,228,774	98,219,880
Tons produced	19,842,359	46,982,000	400,701,940	467,526,299	467,526,299
Output per man-day	13.92	[3] 7.16	[1] 4.76	5.06	[1] 4.76
Loss in employment opportunities	[1] 14,000	[1] 18,000		[4] 32,000	

[1] Derived figure.
[2] Average for 11 mines studied by Bureau of Labor Statistics; this figure is probably low, as fewer days were worked in the industry in 1931, the year for which sample data were obtained, than in 1930.
[3] Average for 11 mines studied by Bureau of Labor Statistics.
[4] Calculated on basis of mines in column 3 combined with average number of days worked in all mines and total production.

In strip mines there is a limit beyond which it would not be economical to produce, but it is not beyond the realm of possibility that all requirements might be met by mining seams adapted to the use of mechanical loading and other mechanized equipment; this would naturally mean that many of the thin seams, of the interior particularly, could not continue to supply their quota of the national

output.[6] In this event the employment of only 349,182 men would be necessary to mine the 467,526,299 tons of coal produced in 187 days in 1930 at the rate of 7.16 tons per man per day, the productivity rate of the mines with mechanized loading studied by the Bureau of Labor Statistics. This means that 70.8 per cent of the number of persons employed in 1930 could produce the same tonnage and in the same time in mines physically adapted to mechanized loading and with equally efficient operation as has been found to exist now in mines where machinery is used, either as an adjunct to hand loading or in its place. If, in addition, the average number of days of operation should be materially increased the number of employees needed would be correspondingly reduced.

[6] The percentages of total output of bituminous coal obtained from beds of specified thickness in the United States in 1920 were as follows:

Thickness	Per cent of total
Under 2 feet	0.5
2 and under 4 feet	24.3
4 and under 6 feet	45.3
6 feet and over	29.9
Total	100.0

EMPLOYMENT CONDITIONS AND UNEMPLOYMENT RELIEF

Report of Connecticut Unemployment Commission

THE unemployment commission appointed by the Connecticut General Assembly to investigate unemployment, with a view to discovering means for its alleviation, has reported in favor of the establishment of a system for the payment of dismissal wages rather than of one for the payment of unemployment benefits.[1]

In considering the measures for the alleviation of unemployment the commission was concerned principally with the stable workers in industry, who are defined as men and women who are dependent upon a job not only as a source of income but as a badge of their stability in the social structure and upon whom industry is equally dependent for efficiency of operation. This group, forming the majority of industrial workers, is distinguished from the group comprising the mentally or physically handicapped or those unemployable for other reasons and a second group made up of casual and nomadic workers, both of which groups must be considered, however, in a general program for the alleviation of unemployment in times of widespread depression.

The most important problem that confronted the commission was believed to be the determination regarding the recommendation that should be made concerning State action to require employing units to set up reserves to pay unemployment benefits. After considering the problem from all angles, the commission decided to recommend that no legislative action be taken at this year's session of the State legislature.

The commission decided, after considering the Wisconsin unemployment-insurance law, the bill proposed in the New York Legislature, and the principles incorporated in the Interstate Report on Unemployment Insurance, that an enforced dismissal-wage law provides a much simpler method and therefore a sounder and more practical approach to an undertaking entirely new to State control than does an unemployment-insurance law. The essential difference between the two plans is said to lie in the fact that the typical unemployment-insurance plan involves the complicated machinery necessary to determine when an employee finds other work, so that benefits shall cease, and to determine what constitutes "suitable" employment, whereas under a dismissal-wage plan the only employment which would stop the payment of benefits would be the rehiring of the employee by his former employer. It is said that it might seem at first that the dismissal-wage plan would be the more costly of the two, but the commission believes that actually this would not be the case. To the actual cost of the unemployment benefits in an unemployment-insurance plan would be added an elaborate

[1] Connecticut Unemployment Commission. Measures to alleviate unemployment in Connecticut. Hartford, December, 1932.

administrative system, including a comprehensive employment system, registration of all employees, and the handling of disputed claims. The commission considered, therefore, that the payment of straight dismissal wages would involve far less financial drain on both the State and the employing units, even though in a certain proportion of the cases the wage earner would be drawing his dismissal wage and earnings on his subsequent job at the same time.

The principal points of the proposed dismissal-wage bill are as follows:

Employers having five or more persons in their employ would be required to pay a dismissal wage of half pay for 9 weeks to employees dropped from the pay roll after 40 weeks of employment, or a supplemental wage for 42 out of any consecutive 52 weeks for those employees who are retained at less than half pay or $10 per week, the employer being allowed to choose the 10 weeks during which no supplemental wage shall be given. The amounts paid in supplemental wages would be deducted, however, from any dismissal wage which might be paid the employee during the next 52 weeks. The maximum compensation paid after dismissal at the end of 40 weeks' employment is fixed in the bill at $90, increasing each week up to a maximum of $120 after 52 weeks' employment and over. The minimum weekly payment would be fixed at $5. An employee after having completed 13 weeks of employment but not having reached the fortieth week of employment would be entitled to one week's notice before being dropped, but if this notice is not given the employee would be entitled to a dismissal wage of half pay for two weeks with a maximum of $20. Employees leaving of their own accord, or dismissed for cause, or who were out of employment due to a trade dispute, would be ineligible for a dismissal wage.

An unemployment reserve would be created by compulsory contributions by each employer of not more than 2 per cent of his pay roll deposited to his account with the State treasurer. Each employer's money would be used to pay only his own employees and his liability would be definitely limited to the amount in his own reserve account, which is fixed at a maximum of $75 per eligible employee.

Each employee would be required to contribute to his own termination savings fund in amounts equivalent to the contributions by the employer. These savings, with interest, would be payable to the employee or his heirs upon the termination of his employment for any reason whatsoever.

The plan would be applicable only to employees earning less than $2,000 per year.

Recommendation for System of Compulsory Unemployment Reserves in Massachusetts

THE final report to the Massachusetts General Court of the Massachusetts Special Commission on Stabilization of Employment recommends the establishment of State-compelled unemployment reserves. The report deals with methods for reducing seasonal unemployment and with other phases of stabilization which must be advanced through voluntary action, but states that in addition to such measures a certain degree of State guidance and State compulsion is

necessary. A bill is proposed, therefore, providing for the establishment and administration of a system of compulsory unemployment reserves.

In discussing unemployment conditions and the necessary remedies, it is said in the report that the causes of unemployment are so complex that no one measure can be expected to solve the problem but that the combination of a number of measures can result in a greater stability and that, primarily, a more stabilized employment depends upon a more stabilized industrial order. Since the objective of all stabilizing efforts is to bring about conditions under which all who want work may have it, the test of proposals for stabilization is the degree to which such measures lead to the employment of persons who would not otherwise be employed.

In general much can be done toward the reduction of seasonal unemployment by the action of individual employers in instituting measures for the regularization of their industries. But even with a return to normal business conditions a very large proportion of the estimated 12,000,000 now unemployed could not be reemployed, since, as a result of technological changes, capacity production can be reached with fewer people at work. It is estimated in the report that the number of persons unemployed for this reason would be as many as 5,000,000. In view of the large number displaced by machines, therefore, it is said that "the only way out seems to be a general shortening of the number of hours people will work. In the past we have talked about a 50-hour week or a 48-hour week as though they were ultimate standards. It is conceivable that we should stop thinking in terms of any set number of weekly hours." As a factor in long-range stabilization this division of the man-hours necessary to turn out the product among a greater number of people, it is considered, has an importance that can not be overestimated, and the commission recommends, therefore, that a group of industrialists, educators, and labor leaders should be appointed to consider the adoption in the State of a system of flexible working hours.

While recognizing the importance of voluntary action for the reduction of unemployment by individual employers and industrial groups, the commission was of the opinion that a certain degree of State guidance and State compulsion is also required. In view of the slow growth of the unemployment-insurance idea and the fact that only a small fraction of the employees are to-day under any form of unemployment insurance or reserves, the committee recommended that the action on this matter be compulsory. The recommendation was made, it is stated, in full consciousness of the grave implications of putting into law a measure whereby industry must pay people who become unemployed through no fault of their own. It appeared certain, however, that unless a start was made by the State there would be no appreciable progress in solving the problem. A bill was proposed, therefore, to be submitted to the next session of the legislature providing for the establishment and administration of the proposed unemployment-insurance system. The chief provisions of the bill are as follows:

Employers of 10 or more persons, except in agriculture and certain special employments, shall be required to contribute 2 per cent of the pay roll of all employees receiving $1,500 or less per year. The employer's payment is to be made monthly or oftener to an unemployment reserve fund deposited with the State treasurer, each employer's

deposit being kept in a separate account. When an employer's reserve amounts to $50 per covered employee the rate of contribution will be reduced to 1 per cent, and when the reserve per employee amounts to $75 contributions will cease until the reserve falls below this level.

Benefits will be paid from each employer's account to each eligible employee laid off more than four weeks or dismissed through no fault of his own, providing such an employee is unable to find suitable employment by the end of four weeks. Benefits will amount to one-half the normal wage or salary of the employee but may not exceed $10 per week and are limited to 10 weeks in any 12-month period.

Each employer's liability is limited to the amount of his unemployment reserve account, and he can not be required to pay more, so that when the account is exhausted the unemployed workers draw no further benefits.

An employer may substitute his own voluntary plan for the State plan, provided the benefits offered are at least equivalent to those required by the bill. His plan, however, will be subject to the approval of the Department of Labor and Industries.

In commenting on the plan, it is stated in the report that as the cost of the plan to the employer is limited to his 2 per cent contribution, while the employees must bear, if unemployed, the loss of all wages during the first four weeks of unemployment and during any period of unemployment beyond the 10 weeks' limit, together with half or more of the wages lost during the benefit period, it was felt that all the contributions to the fund should be made by the employers. Also, it was considered that placing the entire financial burden on the employers would have the effect of stimulating them to reduce the number of lay-offs and dismissals as much as possible in order to keep the unemployment reserve at the $50 or $75 level and thus reduce the amount of their contributions.

It is wholly possible that the charges of such an unemployment reserve fund as is here suggested will call persistent attention to the true costs involved in excesses of irregular operation and gradually modify measures and policies so as to reduce such excesses. All kinds of unemployment—cyclical, seasonal, and technological—can be mitigated by the reduction of such excesses. At any rate this possibility should be fully worked out.

An Analysis of the Buffalo, N. Y., Unemployment Surveys, 1929 to 1932 [1]

By Frederick E. Croxton, Columbia University

THIS report presents the findings of the fourth annual study of unemployment in Buffalo, N. Y., conducted during the early part of November, 1932, and gives comparative figures of the three earlier studies. Data for the 1932 study were collected as of November 4, 1932, while data for the preceding studies were taken as of November 2, 1931, November 3, 1930, and November 4, 1929.[2] The first investigation was made under the auspices of the New York

[1] A brief statement of the results of the 1932 Buffalo unemployment survey was contained in the January, 1933, Monthly Labor Review.

[2] The results of the earlier studies were published as special Bulletins 163, 167, and 172 of the division of statistics and information of the New York State Department of Labor and as Nos. 72, 73, and 75 of the Foundation Forum of the Buffalo Foundation. Summaries appeared in the Monthly Labor Review for February, 1930, January, 1931, and February, 1932.

State Department of Labor and the last three studies under the joint auspices of that department and the Buffalo Foundation.

The field work was done by students of sociology and economics from the State Teachers College at Buffalo and students of labor problems from the University of Buffalo. The enumerators received detailed printed instructions, supplemented by oral discussion, and their work was closely supervised. Extreme care was exercised to follow up all doubtful or difficult cases encountered by these field workers. This was done by a small group of paid workers assisted by several trained social workers.

By a house-to-house canvass of selected areas in the city the enumerators secured as definite information as possible concerning the employment status of all males 18 years of age or over, except those in school, and of all females 18 years of age or over who were usually employed in gainful occupations. The schedule used in 1930, 1931, and 1932 called for information for each person as to relation to head of household, sex, age, nativity, present or last employer, industry and occupation, employment status, and whether able to work and willing to work. The schedule for 1929 was essentially the same except for the omission of the inquiries concerning whether able to work and willing to work, and except also that the inquiry of age was added after the study had begun in 1929, and data were obtained for but part of the unemployed rather than for all persons, as in the later studies. As indicated in the 1930 report, the questions concerning whether able to work and whether willing to work were included as an experiment. Answers to these questions when taken in conjunction with the reported reason for idleness assisted in classifying the unemployed into the major categories—(1) able and willing to work, (2) temporarily unable to work, (3) permanently unable to work, and (4) unwilling to work. Three years' use of the schedule in its present form has shown its simple but practical qualities. All results, however, must be looked upon as experimental and studies of unemployment will undoubtedly yield only "first approximations" for some time to come. Added experience and increased study will doubtless serve to bring about gradual modifications and improvements in technique. It must be recognized that answers to the question as to whether or not an unemployed person was able and willing to work, as well as the reported cause for unemployment, represented the opinion of the informant, modified by queries from the enumerator, and subject, in numerous instances, to substantiation through a subsequent visit by a more experienced enumerator or a trained social worker.

Satisfactory data concerning unemployment are obtainable only by personal inquiry or by a system of exhaustive registration. House-to-house enumerations are by far the more feasible, but involve a great expense of time and money if more than a few thousand persons are to be studied.

Data of unemployment are of value to supplement existing data on employment and may be used to assist in the determination of unemployment-insurance rates. Unemployment data, collected periodically and made promptly available, are also of assistance to relief agencies in planning their activities.[3]

[3] The data of this study were collected early in November. Preliminary data were ready Nov. 26 and were released for newspaper publication Dec. 1.

The value of unemployment data is enhanced when data for previous years are available. Not only may something be learned of employment fluctuations, but some idea may be obtained of the amount of unemployment and of part-time employment present in good times. Such a series of studies as here described should be continued, perhaps eventually paralleled by others at different seasons of the year, and should be extended to other cities of the State.[4]

Scope of Studies

THIS report shows data, not for the entire city of Buffalo, but merely for the persons enumerated in nine selected areas of the city. These areas were selected by the Buffalo Foundation in the belief that they would yield a satisfactory cross section of the city industrially. In selecting the areas to be studied the Buffalo Foundation brought to bear upon the problem a wealth of previous information and experience concerning the city of Buffalo and the composition of its population. The areas studied were the same in each of the four years.

In 1932 information was obtained for 15,498 persons of whom 9,569 were reported as heads of households. Information concerning nativity was secured for 15,497 persons. Of these, 78.7 per cent were native white, 1.6 per cent were native colored, and 19.7 per cent were foreign born. Two native-born Indians were classified with native whites.

Comparing the nativity of the persons enumerated in this study with the nativity of occupied persons found in Buffalo by the United States census of 1930 it is found that the present study included a larger proportion of native whites and smaller proportions of native colored and foreign born than did the census. The larger proportion of native colored found by the census may be due to the fact that the census includes as negroes not only full-blooded negroes but adds that "a person of mixed white and negro blood should be returned as a negro, no matter how small the percentage of negro blood." The more practical procedure is to class as negroes only those persons in whom negro blood predominates or who are accepted in the community as colored. Those with a large proportion of white blood are frequently classed as white and so reported. The divergence from the census of the proportions of native whites and foreign born may be due to lack of representativeness of the sample; however, it is logical to expect a slightly larger proportion of native white in the population in 1932 than in 1930. Furthermore it may be that the difference is more apparent than real. The United States census may obtain more accurate replies in regard to nativity, since the enumerators ask not only place of birth but also mother tongue, year of immigration, whether naturalized, and whether able to speak English.

In order to assure as high a degree of comparability as possible between 1929 and 1930, the same houses were visited in the second year as in the first. Because of vacancies and demolished houses this resulted in the enumeration of a smaller number of persons in 1930 than in 1929. In order to offset a further decrease in 1931 the same houses were visited in that year as in 1930 and, in addition, approxi-

[4] See New York State Department of Labor, division of statistics and information, special Bulletin 173: Unemployment in Syracuse, November, 1931, by John Nye Webb.

mately 10 per cent more houses were visited in each area. The houses visited in 1932 were the same as in 1931.

Evidence of the stability of the sample in respect to industry groups is found in Table 1. The percentage columns of the table show relatively little shifting in the industrial composition of the population enumerated in the four studies. There may be noticed a continued increase in the proportion of government employees. Some of this change was doubtless due to increasing relief work offered by State and local governments. A slight but continued decline was present in the proportion of persons engaged in manufacturing and mechanical pursuits. There was present also a decline in the proportion of persons in the building trades. In 1932 the decline in the proportion of wage earners in the building trades was very nearly offset by an increase in the proportion of contractors. This suggests that many who were formerly wage earners may have become contractors on a small scale.

In 1931 the group "trade and transportation—other" was subdivided to show separate data for "bank and brokerage" and for "insurance and real estate." Likewise in 1931 the classification "manufacturing and mechanical pursuits—other" was subdivided to show separate data for "lumber and furniture" and for "airplanes."

TABLE 1.—INDUSTRY DISTRIBUTION OF ALL PERSONS ENUMERATED IN BUFFALO UNEMPLOYMENT SURVEY, 1929–1932

[Does not include 18 persons in 1931, 58 persons in 1930, and 138 persons in 1929 not reporting as to industry group]

Industry group	1929		1930		1931		1932	
	Number of persons	Per cent of total	Number of persons	Per cent of total	Number of persons	Per cent of total	Number of persons	Per cent of total
Professional	562	3.7	533	3.8	579	3.7	569	3.7
Clerical (not otherwise specified)	116	.8	36	.3	99	.6	99	.6
Domestic and personal service	777	5.2	912	6.5	972	6.2	1,063	6.9
Government employees (other than teachers)	919	6.1	913	6.6	1,159	7.3	1,278	8.2
Trade and transportation:								
Retail and wholesale trade	1,693	11.3	1,706	12.2	1,963	12.6	1,916	12.4
Telephone and telegraph	254	1.7	251	1.8	238	1.5	179	1.2
Railway, express, gas, electric light	1,757	11.7	1,609	11.6	1,824	11.7	1,758	11.4
Water transportation	87	.6	100	.7	89	.6	100	.6
Bank and brokerage	696	4.6	638	4.6	179	1.2	190	1.2
Insurance and real estate					239	1.5	216	1.4
Other					271	1.7	300	1.9
Total	4,487	29.9	4,304	30.9	4,803	30.8	4,659	30.1
Manufacturing and mechanical pursuits:								
Building trades, contractors	347	2.3	309	2.2	341	2.2	428	2.8
Building trades, wage earners	884	5.9	770	5.5	826	5.3	714	4.6
Clay, glass, and stone products	98	.6	116	.8	100	.6	99	.6
Food and kindred products	627	4.2	594	4.3	666	4.3	689	4.5
Iron, steel, and their products	1,456	9.7	1,299	9.3	1,468	9.4	1,453	9.4
Metal products, other than iron and steel	211	1.4	193	1.4	194	1.2	189	1.2
Paper, printing and publishing	290	1.9	331	2.4	332	2.1	309	2.0
Wearing apparel and textiles	522	3.5	433	3.1	448	2.9	443	2.9
Automobiles, parts, and tires	1,068	7.1	950	6.8	997	6.4	966	6.2
Lumber and furniture	1,458	9.7	1,186	8.5	320	2.1	310	2.0
Airplanes					197	1.3	189	1.2
Other					830	5.3	759	4.9
Total	6,961	46.3	6,181	44.3	6,719	43.1	6,548	42.3
Labor (not otherwise specified)	78	.5	42	.3	27	.2	34	.2
Self-employed	1,063	7.1	895	6.4	1,098	7.0	1,059	6.8
Miscellaneous	63	.4	128	.9	171	1.1	189	1.2
Grand total	15,026	100.0	13,944	100.0	15,607	100.0	15,498	100.0

Employment Status

THE most important inquiries concerned employment status. Each person was classified as to whether he was employed full time, part time, or not at all. For those employed part time the fraction of usual full time was obtained. Those unemployed were asked the duration of unemployment and the reason. In the 1930, 1931, and 1932 studies the unemployed were classified into the following groups:

1. Able and willing to work, unemployed because of—
   Slack work.
   Forced retirement.
   Miscellaneous reasons.
2. Temporarily unable to work, unemployed because of—
   Sickness.
   Injury.
3. Permanently unable to work, unemployed because of—
   Sickness.
   Injury.
   Old age.
   Miscellaneous reasons.
4. Unwilling to work, unemployed because of—
   Voluntary retirement (including pensioned).
   Laziness or indifference.
   Miscellaneous reasons.

The classification in which an unemployed person was placed was determined by the reason given to account for the fact that he was unemployed at the time of the enumeration, rather than the reason for losing his last job. In the vast majority of cases these two reasons were one and the same. In the few instances where they differed, it generally happened that the individual,who had been laid off because of sickness or injury, was well at the time of the enumeration but unable to secure his old job or any other because of a shortage of demand for labor. There can be no objective test which will determine into which category an unemployed person should be placed. The court of last resort in deciding why a person is unable to secure work is undoubtedly the person himself. Consequently, the classification of the unemployed into the categories as given above was determined by the opinion of the informant, subject to modification by queries from the enumerator, and subject, too, in numerous instances, to substantiation by a subsequent visit by a more experienced enumerator or a trained social worker. Quite satisfactory results have been obtained in using this classification for males, though it must be obvious that there is an occasional sick or injured person who can not be definitely classed as "temporary" or "permanent" by even the most competent medical authority. Since the studies have all been designed to include only those females 18 years of age or over who were usually engaged in gainful occupations it is clear that satisfactory data for females would be received only for those falling in the groups "able and willing to work" and "temporarily unable to work."

Employment Status of Persons Able and Willing to Work

THE data of Table 2 refer only to those persons who were able and willing to work at the time of the enumeration in each of the four years. While data were collected concerning males unable and unwilling to work and concerning females temporarily unable to work, all of these groups are excluded from this table.

TABLE 2.—EMPLOYMENT STATUS OF ALL PERSONS ENUMERATED IN BUFFALO, ABLE AND WILLING TO WORK, BY SEX, 1929–1932

Employment status	Number				Per cent			
	1929	1930	1931	1932	1929	1930	1931	1932
Males								
Employed:								
Full time	10,157	6,930	6,325	5,262	86.7	64.2	52.5	44.0
Part time	833	2,007	2,793	2,795	7.1	18.6	23.2	23.4
Two-thirds but less than full time	374	856	952	846	3.2	7.9	7.9	7.1
Half but less than two-thirds time	310	764	1,033	1,090	2.6	7.1	8.6	9.1
One-third but less than half time	79	261	420	464	.7	2.4	3.5	3.9
Less than one-third time	32	109	379	394	.3	1.0	3.1	3.3
Fraction not reported	38	17	9	1	.3	.2	.1	(1)
Unemployed	[2] 724	1,863	2,927	3,903	[2] 6.2	17.2	24.3	32.6
Total	11,714	10,800	12,045	11,960	100.0	100.0	100.0	100.0
Females								
Employed:								
Full time	2,517	1,958	1,874	1,639	91.1	73.2	62.6	55.6
Part time	148	326	487	560	5.4	12.2	16.3	19.0
Two-thirds but less than full time	48	113	145	141	1.7	4.2	4.9	4.8
Half but less than two-thirds time	62	139	190	235	2.3	5.2	6.4	8.0
One-third but less than half time	18	47	72	96	.7	1.8	2.4	3.2
Less than one-third time	12	24	79	88	.4	.9	2.6	3.0
Fraction not reported	8	3	1		.3	.1	(1)	
Unemployed	[2] 97	391	633	750	[2] 3.5	14.6	21.1	25.4
Total	2,762	2,675	2,994	2,949	100.0	100.0	100.0	100.0
Both sexes								
Employed:								
Full time	12,674	8,888	8,199	6,901	87.5	66.0	54.5	46.3
Part time	981	2,333	3,280	3,355	6.8	17.3	21.8	22.5
Two-thirds but less than full time	422	969	1,097	987	2.9	7.2	7.3	6.6
Half but less than two-thirds time	372	903	1,223	1,325	2.6	6.7	8.1	8.9
One-third but less than half time	97	308	492	560	.7	2.3	3.3	3.8
Less than one-third time	44	133	458	482	.3	1.0	3.0	3.2
Fraction not reported	46	20	10	1	.3	.1	.1	(1)
Unemployed	[2] 821	2,254	3,560	4,653	[2] 5.7	16.7	23.7	31.2
Grand total	14,476	13,475	15,039	14,909	100.0	100.0	100.0	100.0

[1] Less than one-tenth of 1 per cent.
[2] This is the "slack work" classification for 1929.

TABLE 3.—EQUIVALENT FULL-TIME EMPLOYMENT [1] OF ALL PERSONS (BOTH SEXES) ENUMERATED IN BUFFALO WHO WERE ABLE AND WILLING TO WORK, 1929–1932

Year	Per cent of time employed	Per cent of time unemployed	Total
1929	92.1	7.9	100.0
1930	77.1	22.9	100.0
1931	67.3	32.7	100.0
1932	59.1	40.9	100.0

[1] Part time was reduced to its full-time equivalent. Thus, 6 men working "two-thirds but less than full time" would be equivalent, in point of time employed, to 5 men fully employed and 1 unemployed.

Comparing the figures for males and females for each year, it will be observed that women showed a greater proportion of full-time employment and a smaller proportion of part-time employment and of unemployment. This, of course, is largely because the females were more generally engaged in clerical and salaried occupations.

Table 3 shows the proportion of employment and the proportion of unemployment among the persons enumerated in each year who were able and willing to work. In constructing this table, part-time employment was expressed in terms of equivalent full time.

Employment Status of All Persons Enumerated

TABLE 4, shows, for males and for females, the employment status, not only of the persons able and willing to work, but also of the men unable and unwilling to work and of the women temporarily unable to work. This table shows that, for every thousand males enumerated in 1932, 420 were employed full time, 223 were employed part time, 312 were able and willing to work but unable to find jobs, 8 were temporarily unable to work, 18 were permanently unable to work, and 19 were unwilling to work.

The employment status of all males enumerated in 1929, 1930, 1931, and 1932 is shown in Table 5. This table yields some interesting comparisons of the numbers of men unable and unwilling to work at the time of the last three studies. The men temporarily unable to work were eight-tenths of 1 per cent in 1930, seven-tenths of 1 per cent in 1931, and eight-tenths of 1 per cent in 1932. Those permanently unable to work were 1.5 per cent in 1930 and 1.8 per cent in 1931 and 1932. The males unwilling to work constituted 2 per cent of the total in 1930 and in 1931 and 1.9 per cent in 1932. Through three depression years the proportion of men unable and unwilling to work showed remarkable stability.

TABLE 4.—EMPLOYMENT STATUS AND CAUSE OF UNEMPLOYMENT OF ALL PERSONS ENUMERATED IN BUFFALO, BY SEX, 1932

Employment status, and cause of unemployment	Number			Per cent		
	Males	Females	Both sexes	Males	Females	Both sexes
Employed:						
Full time	5,262	1,639	6,901	42.0	55.1	44.5
Part time	2,795	560	3,355	22.3	18.8	21.7
Unemployed	4,466	776	5,242	35.7	26.1	33.8
Able and willing to work	3,903	750	4,653	31.2	25.2	30.0
Slack work	3,861	746	4,607	30.8	25.1	29.7
Forced retirement	24	1	25	.2	(1)	.2
Miscellaneous	18	3	21	.2	.1	.1
Temporarily unable to work	95	26	121	.8	.9	.8
Sickness	67	25	92	.6	.9	.6
Injury	28	1	29	.2	(1)	.9
Permanently unable to work	227	----------	227	1.8	----------	1.4
Sickness	103	----------	103	.8	----------	.7
Injury	51	----------	51	.4	----------	.3
Old age	70	----------	70	.6	----------	.4
Miscellaneous	3	----------	3	(1)	----------	(1)
Unwilling to work	241	----------	241	1.9	----------	1.6
Voluntary retirement	231	----------	231	1.8	----------	1.5
Lazy or indifferent	9	----------	9	.1	----------	.1
Miscellaneous	1	----------	1	(1)	----------	(1)
Total	12,523	2,975	15,498	100.0	100.0	100.0

[1] Less than one-tenth of 1 per cent.

In comparing the persons unemployed for various reasons at the time of the four studies it should be noted that those classified in 1930, 1931, and 1932 as able and willing to work but unable to locate jobs because of slack work, forced retirement, or miscellaneous reasons [4] are essentially equivalent to those classified as unemployed because of slack work in 1929. A very minor qualification is necessary,

[4] Those able and willing to work but unemployed for miscellaneous causes include such cases as employees who, because of a wage cut or other reasons, had given up their jobs and who were about to seek other employment and self-employed persons who, because of unsatisfactory business conditions, had abandoned their undertakings and were about to seek employment.

inasmuch as a few persons reported simply as retired in 1929 may have been forcibly retired. The number of these, however, would appear to be quite small, since in the other years the males reported as forcibly retired constituted but a fraction of 1 per cent of all males enumerated. A very small number of persons who were out of work but who had not yet begun to look for work were classified as "able and willing to work, unemployed for miscellaneous reasons" in 1930, 1931, and 1932. Such persons in 1929 were merely classed with certain others (who were not able and willing to work) as unemployed because of "miscellaneous causes." That this group is very unimportant is shown by the fact that all of those males in 1932 who were able and willing to work and unemployed for miscellaneous reasons were but two-tenths of 1 per cent of all males enumerated. (See Table 4.)

TABLE 5.—PERCENTAGE DISTRIBUTION OF ALL MALES ENUMERATED IN BUFFALO, ACCORDING TO EMPLOYMENT STATUS, 1929–1932

[Does not include 13 males in 1929, 1 male in 1930, and 1 male in 1931 not reporting as to cause of unemployment]

Employment status	1929	1930	1931	1932
Employed:				
Full time	82.4	61.4	50.2	42.0
Part time	6.8	17.8	22.1	22.3
Unemployed	10.8	20.8	27.7	35.7
Able and willing to work	[1] 5.9	16.5	23.2	31.2
Temporarily unable to work	4.9	.8	.7	.8
Permanently unable to work		1.5	1.8	1.8
Unwilling to work		2.0	2.0	1.9
Total	100.0	100.0	100.0	100.0

[1] This is the "slack work" classification for 1929.

Age and Employment Status

DATA concerning age were requested for all persons enumerated in 1930, 1931, and 1932. Table 6 shows the employment status, by age groups, of the males able and willing to work at the time of the 1932 study.

The percentage data of this table show for each age group the proportion of that group employed full time, part time, and unemployed. These figures reveal that the proportion unemployed was least among the males 35 and under 40 years of age, and only slightly higher for the men 30 and under 35 and 40 and under 60. The greatest proportion of unemployed was shown by the very young and the very old groups. Unemployment was greatest among the very young and the very old in 1930 and 1931 also. It was least among those 35 and under 40 in 1931 and 1932 and among those 35 and under 45 in 1930.

The data of Table 6 shows that the greatest proportion of males employed part time was among those aged 35 and under 60, while the proportion employed part time was least among the youngest and oldest. Full-time work was enjoyed by about the same proportion of men within the range of 25 to 65 years, while full-time work was least for the very young and the very old. In 1930 and 1931 the central age groups showing most part-time employment and most full-time employment differed slightly from those just mentioned, but in each year part-time employment and full-time employment were proportionally less among the very young and very old and greatest among the central age groups.

TABLE 6.—EMPLOYMENT STATUS OF MALES ABLE AND WILLING TO WORK ENUMERATED IN BUFFALO, BY AGE GROUPS, 1932

[Does not include 3 males not reporting as to age]

Age	Number				Per cent			
	Employed full time	Employed part time	Unemployed	Total	Employed full time	Employed part time	Unemployed	Total
Under 20 years	104	36	203	343	30.3	10.5	59.2	100.0
20 and under 25 years	476	224	670	1,370	34.7	16.4	48.9	100.0
25 and under 30 years	617	302	423	1,342	46.0	22.5	31.5	100.0
30 and under 35 years	697	324	386	1,407	49.6	23.0	27.4	100.0
35 and under 40 years	827	462	447	1,736	47.6	26.6	25.8	100.0
40 and under 45 years	740	446	429	1,615	45.8	27.6	26.6	100.0
45 and under 50 years	594	346	389	1,329	44.7	26.0	29.3	100.0
50 and under 55 years	484	306	317	1,107	43.7	27.7	28.6	100.0
55 and under 60 years	310	170	186	666	46.6	25.5	27.9	100.0
60 and under 65 years	228	102	198	528	43.2	19.3	37.5	100.0
65 and under 70 years	130	50	154	334	38.9	15.0	46.1	100.0
70 years and over	53	26	101	180	29.5	14.4	56.1	100.0
Total	5,260	2,794	3,903	11,957	44.0	23.4	32.6	100.0

Cause of Unemployment

IN Table 7 data are given of the employment status and cause of unemployment of all persons enumerated. Each classification of the unemployed is shown as a percentage of all persons enumerated.

In 1932 the men who were able and willing to work, but unemployed, constituted 31.2 per cent of all males enumerated; those males idle because of slack work were 30.8 per cent of all males enumerated; the males unemployed because of forced retirement were two-tenths of 1 per cent of the total. The distinction between "slack work" and "forced retirement" is not clear cut and absolute since, as prosperous times appear, many of those "forcibly retired" may be reabsorbed into industry.

The distinction between "temporary" and "permanent" in respect to sickness and injuries allows some latitude for opinion. As stated in the report of the 1932 study, even a skilled physician can not be sure that a temporary case may not become permanent or that a person adjudged permanently sick or injured may not recover. Neither is it always possible to determine unquestionably whether an individual is unable to work because of permanent sickness or because of the feebleness of old age. "Old age" does not arrive at a particular day and hour. Old age, for many, as a cause of unemployment, arrives when work fitted to their years and physical condition can no longer be had. Preceding this is a period of "odd jobs" or "slack work," and finally the wage earner discovers that he is "old." Retirement of a voluntary sort frequently follows along the same line of experience, except that it is coupled with the ability to secure some support from accumulated property, from other members of the family, or from organizations.

In spite of such difficulties of classification, remarkable stability of the groups of those unable and unwilling to work has been shown over a 3-year period. Table 7 shows for 1930, 1931, and 1932 the employment status and cause of unemployment of all males enumerated, indicating the proportion which each group of the unemployed constituted of all males enumerated. In each of the three years six-tenths of 1 per cent of the males were unemployed because of temporary

sickness. Temporary injury accounted for the unemployment of two-tenths of 1 per cent of the men in 1930 and 1932 and for one-tenth of 1 per cent in 1931.[5] The men permanently sick were nine-tenths of 1 per cent of all males enumerated in 1930 and eight-tenths of 1 per cent in 1931 and 1932. Those unemployed because of permanent injuries constituted two-tenths of 1 per cent in 1930 and four-tenths of 1 per cent in 1931 and 1932. Old age accounted for unemployment of four-tenths of 1 per cent of the males in 1930 and six-tenths of 1 per cent in 1931 and 1932. The men who were voluntarily retired made up 1.9 per cent of the total in 1930 and 1931 and 1.8 per cent in 1932. Those reported as lazy or indifferent were one-tenth of 1 per cent in each of the three years.

TABLE 7.—EMPLOYMENT STATUS AND CAUSE OF UNEMPLOYMENT OF ALL MALES ENUMERATED IN BUFFALO, 1930–1932

[Does not include 1 male in 1931 and 1 male in 1930 not reporting as to cause of unemployment]

Employment status, and cause of unemployment	Number			Per cent		
	1930	1931	1932	1930	1931	1932
Employed:						
Full time	6,930	6,325	5,262	61.4	50.2	42.0
Part time	2,007	2,793	2,795	17.8	22.1	22.3
Unemployed	2,349	3,496	4,466	20.8	27.7	35.7
Able and willing to work	1,863	2,927	3,903	16.5	23.2	31.2
Slack work	1,785	2,861	3,861	15.8	22.7	30.8
Forced retirement	57	39	24	.5	.3	.2
Miscellaneous	21	27	18	.2	.2	.2
Temporarily unable to work	94	92	95	.8	.7	.8
Sickness	66	72	67	.6	.6	.6
Injury	28	20	28	.2	.1	.2
Permanently unable to work	166	228	227	1.5	1.8	1.8
Sickness	96	97	103	.9	.8	.8
Injury	25	49	51	.2	.4	.4
Old age	42	80	70	.4	.6	.6
Miscellaneous	3	2	3	(1)	(1)	(1)
Unwilling to work	226	249	241	2.0	2.0	1.9
Voluntary retirement	209	238	231	1.9	1.9	1.8
Lazy or indifferent	15	10	9	.1	.1	.1
Miscellaneous	2	1	1	(1)	(1)	(1)
Total	11,286	12,614	12,523	100.0	100.0	100.0

[1] Less than one-tenth of 1 per cent.

Duration of Unemployment

THE duration of unemployment of the males who were able and willing to work is shown for each year in Table 8. The data of this table disclose that the duration of unemployment of the men looking for work was longer in 1932 than in 1931, longer in 1931 than in 1930, and longer in 1930 than in 1929. The unemployed who had been out of work 10 weeks or more formed just under one-third in 1929, two-thirds in 1930, nearly four-fifths in 1931, and almost nine-tenths in 1932. Slightly fewer than one-tenth had been out of work a year or more in 1929, but one-fifth had been out of work that long in 1930, two-fifths in 1931, and three-fifths in 1932. Over a third (36.5 per cent) of the

[5] If percentages are calculated to several decimal places and the results stated as tenths of 1 per cent a difference of one-tenth of 1 per cent between two figures has little meaning. Considering five decimals, any number from 0.00051 to 0.00149 would be written as 0.1 per cent and anything from 0.00151 to 0.00249 would be written as 0.2 per cent. The difference between these two figures may be as great as 0.00198 or as little as 0.00002. To show percentages to hundredths of 1 per cent would give an appearance of accuracy hardly justified by the number of cases included in this study.

unemployed males who were able and willing to work had been out of work two years or more in 1932.[6]

TABLE 8.—DURATION OF UNEMPLOYMENT OF ALL MALES ABLE AND WILLING TO WORK,[1] ENUMERATED IN BUFFALO, BUT UNABLE TO FIND JOBS, 1929–1932

[Does not include 14 males in 1929, 12 males in 1930, 1 male in 1931, and 3 males in 1932, not reporting as to duration of unemployment]

Duration of unemployment	Number				Per cent			
	1929	1930	1931	1932	1929	1930	1931	1932
Under 2 weeks	112	79	75	55	15.8	4.3	2.6	1.4
2 and under 4 weeks	158	147	145	104	22.2	7.9	5.0	2.7
4 and under 10 weeks	216	389	371	245	30.4	21.0	12.7	6.3
10 and under 20 weeks	87	331	392	305	12.3	17.9	13.4	7.8
20 and under 30 weeks	44	264	342	419	6.2	14.3	11.7	10.7
30 and under 40 weeks	22	147	189	230	3.1	7.9	6.4	5.9
40 and under 52 weeks	5	103	153	199	.7	5.6	5.2	5.1
52 weeks and over	66	391	1,259	2,343	9.3	21.1	43.0	60.1
Total	710	1,851	2,926	3,900	100.0	100.0	100.0	100.0

[1] This is the "slack work" classification for 1929.

Data of the duration of unemployment of the unemployed females who were able and willing to work at the time of each of the four studies were also secured. While not many females were enumerated as unemployed in 1929, it appears that unemployment had been of slightly longer duration in 1930 than in 1929. Many more women were counted among the unemployed in the later years and unemployment had been of decidedly longer duration in 1931 than in 1930 and again of much longer duration in 1932 than in 1931.

Industry Groups and Employment Status

TABLE 9 shows a comparative summary of employment status by industry groups for the males able and willing to work in 1930, 1931, and 1932. As stated previously, the industry group "trade and transportation—other" was divided to show separate data for "bank and brokerage" and for "insurance and real estate" in 1931. In that year, also, the industry group "manufacturing and mechanical pursuits—other" was divided to show separate data for "lumber and furniture" and for "airplanes."

Considering the two major industry groups "trade and transportation" and "manufacturing and mechanical pursuits" it will be seen that employment conditions in 1932, as in previous years, were much better in the first-mentioned group than in the second. Of the males enumerated in trade and transportation as able and willing to work, 53.3 per cent were working full time, 21.2 per cent were on part time, and 25.5 per cent were unemployed. In manufacturing and mechanical pursuits 28.5 per cent of the men were fully employed, 29.9 per cent were working part time, and 41.6 per cent were out of work.

Considering for 1932 the industry groups, which employed large numbers of males, the data of Table 9 show that of the males, able

[6] In 1932, 1,425 men, able and willing to work, were enumerated as having been unemployed two years or more. This number exceeds by 166 the number of men reported in 1931 as out of work a year or more. This discrepancy is probably due to the fact that some men who had been out of work just under a year in 1931, were reported as having been out of work two years in 1932. Undoubtedly the reporting of duration of unemployment is subject to "rounding" in much the same way as ages are sometimes reported to various convenient round numbers.

and willing to work, the greatest proportion unemployed was among the wage earners in the building trades who reported 65.8 per cent unemployed. Following, in order, was automobile manufacturing with 50 per cent of the men unable to find work, contractors in the building trades with 46.7 per cent unemployed, lumber and furniture manufacturing with 45.3 per cent out of work, iron and steel manufacturing with 40.2 per cent unable to find jobs, and the manufacture of wearing apparel and textiles with 32.8 per cent unemployed. The industry groups showing the smallest proportions of unemployed were professional service and the self-employed (other than building contractors). Of course, it must be realized that for many in these two groups employment may be on a full-time basis, while income may be very meager.

For the males who were able and willing to work part time employment was greatest in the manufacture of iron and steel and their products, which showed 44.9 per cent on part time. Other industry groups showing large proportions of men employed part time were building trades, contractors, 30.3 per cent; railway, express, gas, and electric light, 29.7 per cent; paper, printing, and publishing, 29.2 per cent; the manufacture of wearing apparel and textiles, 27.6 per cent; and the manufacture and servicing of automobiles, parts, and tires, 25.7 per cent.

Among the important industry groups, full-time employment was least in the manufacture of iron and steel, which showed 14.9 per cent of the men working full time. Other industry groups with small proportions of men employed full time were building trades, wage earners, 15.6 per cent, building trades, contractors, 23 per cent, and the manufacturing and servicing of automobiles, parts, and tires, 24.3 per cent. The industry group with the greatest proportion of men working full time was professional service.

In 1932 a separate count was made of those persons actively in the labor market but who had never been employed since leaving school. There were found 35 males and 53 females looking for clerical work, 98 males and 27 females looking for any kind of work, and 6 females looking for positions as teachers. These persons are included in the data of Table 9.

Comparison of the employment status of the males able and willing to work in 1930, 1931, and 1932 (Table 9) reveals that every industry group showed a greater proportion of males unemployed in 1932 than in 1931, and that every group except paper, printing, and publishing showed a greater proportion unemployed in 1931 than in 1930. The proportion of males employed full time was less in every industry group in 1932 than in 1931, and less in 1931 than in 1930. In 1931 the proportion of men employed part time was greater than in 1930 for all industries except two (water transportation and automobiles, parts, and tires). The changes in proportions of part-time employment from 1931 to 1932 were not all in the same direction, as some industries showed increases and some decreases.

The data of Table 9 show, also, that the large industry groups having the greatest proportions of unemployed males were about the same each year. Greatest unemployment and least full-time employment were shown in the building trades, automobiles, parts, and tires, metal products, and iron and steel. Least unemployment and most full-time employment was present in professional service and for the

self-employed (other than building contractors). Government employees showed a marked increase in unemployment from 1931 to 1932.

TABLE 9.—COMPARATIVE SUMMARY OF EMPLOYMENT STATUS OF ALL MALES ABLE AND WILLING TO WORK, ENUMERATED IN BUFFALO, BY INDUSTRY GROUP, 1930–1932

[Does not include 31 males in 1930 and 9 males in 1931 not reporting as to industry group]

Industry group	1930			1931			1932		
	Employed full time	Employed part time	Unemployed	Employed full time	Employed part time	Unemployed	Employed full time	Employed part time	Unemployed
Professional	92.9	2.4	4.7	88.3	4.2	7.5	84.2	7.7	8.1
Clerical—not otherwise specified	(1)	(1)	(1)	(1)	(1)	(1)	2.6	2.6	94.8
Domestic and personal service	75.2	8.6	16.2	63.8	17.2	19.0	58.8	14.7	26.5
Government employees (other than teachers)	85.5	6.2	8.3	73.7	12.7	13.6	59.1	17.8	23.1
Trade and transportation	75.8	11.4	12.8	63.5	18.1	18.4	53.3	21.2	25.5
Retail and wholesale trade	77.8	8.3	13.9	70.3	10.8	18.9	62.4	13.3	24.3
Telephone and telegraph	87.3	2.9	9.8	76.3	8.6	15.1	43.6	25.6	30.8
Railway, express, gas, electric light	72.9	15.7	11.4	54.9	26.4	18.7	43.5	29.7	26.8
Water transportation	54.5	16.2	29.3	51.9	14.3	33.8	47.7	17.1	35.2
Bank and brokerage	82.2	6.2	11.6	87.2	.8	12.0	79.2	4.8	16.0
Insurance and real estate				79.8	10.1	10.1	76.7	6.2	17.1
Other				63.8	17.9	18.3	50.4	21.9	27.7
Manufacturing and mechanical pursuits	49.6	28.2	22.2	36.3	31.8	31.9	28.5	29.9	41.6
Building trades, contractors	44.2	22.1	33.7	32.4	31.4	36.2	23.0	30.3	46.7
Building trades, wage earners	47.0	17.9	35.1	26.0	23.5	50.5	15.6	18.6	65.8
Clay, glass, and stone products	65.6	21.9	12.5	48.2	25.9	25.9	21.0	33.3	45.7
Food and kindred products	74.3	13.3	12.4	65.7	13.9	20.4	59.4	17.6	23.0
Iron, steel, and their products	41.3	39.9	18.8	20.0	51.0	29.0	14.9	44.9	40.2
Metal products, other than iron and steel	25.5	55.0	19.5	18.4	58.1	23.5	14.0	44.5	41.5
Paper, printing, and publishing	69.0	19.4	11.6	68.7	20.3	11.0	49.6	29.2	21.2
Wearing apparel and textiles	46.2	32.8	21.0	42.1	35.9	22.0	39.6	27.6	32.8
Automobiles, parts, and tires	39.2	33.1	27.7	34.2	25.1	40.7	24.3	25.7	50.0
Lumber and furniture	58.4	23.3	18.3	37.2	26.7	36.1	30.0	24.7	45.3
Airplanes				54.7	12.0	33.3	53.7	7.3	39.0
Other				44.9	30.7	24.4	37.7	32.4	30.0
Labor—not otherwise specified	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Self-employed	88.0	6.1	5.9	78.9	10.9	10.2	75.8	10.0	14.2
Miscellaneous	28.9	5.3	65.8	10.6	3.2	86.2	8.2	.8	91.0
Total	64.2	18.6	17.2	52.5	23.2	24.3	44.0	23.4	32.6

[1] Percentages not calculated because of small numbers involved.

When classified by industry groups the females are too few to warrant any detailed consideration. Two groups, however, are worthy of mention. In domestic and personal service 29.0 per cent of the women, able and willing to work, were unemployed, 27.4 per cent were on part time, and 43.6 per cent were employed full time. In retail and wholesale trade 24.0 per cent of those able and willing to work were out of work, 16.0 per cent were working part time, and 60.0 per cent had full-time work.

Conclusion

UNEMPLOYMENT, which was thought to be great in 1929 and 1930, now seems, in the light of more recent data, to have been relatively less severe than it then appeared to be. There is no satisfactory basis, however, for comparing the results of present unemployment studies with figures for "normal" times. It is to be hoped that recent studies of unemployment will be continued and that others may be begun in order that more data on this subject may be made available.

Unemployment Relief Plans in Germany

A REPORT from C. W. Gray, American vice consul at Berlin, dated December 2, 1932, outlines certain of the measures being taken in Germany for the relief of unemployment, as follows:

Public subsidy for improvement of housing.—The emergency decree of September 4 and the regulations issued in virtue thereof provided for the granting by the Government of a special subsidy of 50,000,000 marks ($11,900,000) for the assistance of house owners. This money is to be given under certain conditions to owners who undertake repair work or the partitioning of apartments between September 25, 1932, and April 1, 1933. The Government is empowered to pay 20 per cent of the cost of repair work, but subsidies of this character may not exceed 250 marks ($59.50) in individual cases. Up to 50 per cent of the total cost can be granted in the case of the partitioning of apartments, but a maximum of 600 marks ($142.80) has been fixed for each newly created apartment. On December 1, 1932, the entire appropriation had been disbursed.

Voluntary labor service.—This service, supported by the Federal Bureau for Employment and Unemployment Insurance and by appropriations of the Federal Government, was introduced in Germany in June, 1931. In it are enrolled mostly young persons who carry out such public works as road building, the improvement of land, the laying out of lots for agricultural settlements, etc. It is estimated that each worker costs 3.50 marks (83 cents) per day, of which 1.50 marks (36 cents) is borne by the organization instituting the work, and the remaining 2.00 marks (48 cents) by the Government and the Federal Employment Bureau.

The growth of the service has been as follows: By the end of April, 1932, there were 37,967 persons enrolled and by the middle of June this number had increased to 60,000. During the next five months, ending October 31, 1932, the number of members rose to 253,957. In the beginning the period of employment on the average did not exceed 10 weeks, but efforts are now being made to extend it to a maximum of 40 weeks.

Productive unemployment relief work.—The German law of employment agencies and unemployment insurance provides for what is known in Germany as productive unemployment relief. This takes the form of subsidies to public works carried out to relieve unemployment. Funds come from two sources: (1) Loans or subsidies granted by the Federal Employment Bureau, but only to the amount expected to be saved; and (2) unemployment benefits, loans or subsidies from the Federal treasury.

During the crisis, productive unemployment relief has been utilized to the fullest extent and on October 31, 1932, the number of persons employed on projects financed through it was 150,000.

Tax voucher scheme.—During the period from October 1, 1932, to September 30, 1933, a person paying the turnover tax, the trade tax, and the land tax will receive a tax voucher equal to 40 per cent of the respective tax paid. In the case of the transportation tax the voucher will be for 100 per cent. These vouchers will be accepted by the Government, under certain conditions, in payment of taxes during the fiscal years 1934 to 1938. They have the character of negotiable credit instruments and were admitted to the German stock exchanges on November 1, 1932. The opening day's quotation was 90.25 and on December 1 it was 90.35.

It is estimated that these tax vouchers will be issued at the rate of 550,000,000 marks ($130,900,000) per quarter, the total issue for the year being estimated at 2,200,000,000 marks ($523,600,000). The theory is that this huge sum will quicken the business life of the country, since taxpayers all over the country can immediately convert their vouchers into cash.

Bonus scheme.—The same decree provided that an employer who, during the period from October 1, 1932, to September 30, 1933, employs a greater number of persons than he employed on an average during the months of June, July, and August, 1932, will receive for each additional person a tax voucher or bonus, of the type described above, amounting to 100 marks ($23.80) for such quarter. This means that for each additional worker or employee who is given work for one year, the employer will receive vouchers totaling 400 marks ($95.20). It is estimated that vouchers to be issued for this purpose will total 700,000,000 marks ($166,600,000).

English Regulations for Determining Transitional Payments Under Unemployment Insurance

UNDER an order effective November 12, 1931,[1] insured workers who had exhausted their claims to standard unemployment benefit were allowed "transitional benefits," or payments, on certain conditions, the most important of which was that they must undergo a means test to prove that they were in need of this aid. Local councils were to conduct the investigation and to determine whether or not their condition called for help. There was considerable diversity in the standards used by the local bodies, some applying what was practically the test used in the case of applicants for pauper outdoor relief, and others taking a more liberal attitude. So much dissatisfaction arose over these divergencies in administration and over the alleged harshness of some of the local bodies, that in its present session Parliament passed an act laying down definite rules as to how certain forms of income and savings were to be assessed in such cases, and what items were to be left out of the account altogether. The act received the royal assent on November 17, 1932, and became effective at once. The regulations it establishes are summarized in the Ministry of Labor Gazette for December, 1932 (p. 448) as follows:

These rules provide that:

(*a*) Any wound or disability pension taken into account shall be treated as if it were reduced by one-half; (*b*) any weekly payment by way of compensation under the enactments relating to workmen's compensation taken into account shall be treated as if it were reduced by one-half; (*c*) all money and investments treated as capital assets and taken into account, shall, (i) in so far as the value of all such money and investments considered in the aggregate does not exceed £25, be disregarded, and, (ii) in so far as that value exceeds £25 but does not exceed £300, be treated as equivalent to a weekly income of 1 shilling for every complete £25. Thus such money and investments will not be taken into account unless they amount to £50 or more; (*d*) in taking into account the value to any person of any interest in the dwelling house in which he resides, any sum which might be obtained by him by selling, or by borrowing money upon the security of, that interest, shall be disregarded. Thus it will not be lawful for a public assistance authority to reduce the determination of a person's need for transitional payments, or to determine that he is not in need of such payments, merely because money could be obtained by selling or mortgaging the house in which he resides.

The act also makes it lawful, in the granting of outdoor relief, under the enactments relating to the poor law, to observe the same rules (as set out above) as must be complied with in relation to transitional payments.

[1] See Monthly Labor Review, December, 1931, p. 73.

INDUSTRIAL AND LABOR CONDITIONS

Findings of President's Research Committee on Social Trends

IN DECEMBER, 1929, President Hoover appointed a committee to make a national survey of social trends in the United States and to report upon its findings. Dr. Wesley C. Mitchell was chairman, the other members being Charles E. Merriam, Shelby M. Harrison, Alice Hamilton, Howard W. Odum, and William F. Ogburn, with Edward Eyre Hunt as executive secretary. The report of the committee, in two volumes, and containing also a summary of its findings, appeared in January, 1933, and is to be followed by 13 monographs, prepared under the direction of the committee, and dealing with special trends.

Outstanding Features of Present Century

THE committee finds that the first third of the twentieth century has been crowded with events and developments which inevitably demand changes in the social structure, that there has been too little conscious direction of these changes, that progress in different lines has been unequal, and that consequently maladjustments, tensions, and disorganizations have resulted which threaten danger to the present social organization.

These unequal rates of change in economic life, in government, in education, in science, and religion, make zones of danger and points of tension. It is almost as if the various functions of the body or the parts of an automobile were operating at unsynchronized speeds. Our capacity to produce goods changes faster than our capacity to purchase; employment does not keep pace with improvement in the machinery of production; interoceanic communication changes more quickly than the reorganization of international relations; the factory takes occupations away from the home before the home can adjust itself to the new conditions.

The outstanding problem might be stated as that of bringing about a realization of the interdependence of the factors of our complicated social structure, and interrelating the advancing sections of our forward movement so that agriculture, labor, industry, government, education, religion, and science may develop a higher degree of coordination in the next phase of national growth.

Emphatically, the committee does not believe in a moratorium upon research in physical science and invention, such as has sometimes been proposed. Rather, social invention should be stimulated to keep pace with mechanical inventions, conscious direction should be substituted for the present policy of drift, and the various parts of our national structure should be brought into closer relationship, "with whatever implications this may hold for ideals and institutions."

Changes in Relation to Social Agencies

THERE are, the committee stresses, four great social agencies affecting the lives of all: The economic and governmental organizations, the church, and the family. Of these the economic organization has been, in part, adjusted to mechanical invention, as shown by

the increased productivity per worker, but the adjustment is only partial. The flow of credit is not adjusted to the flow of production, employer organizations have changed more rapidly than employee organizations, conditions of agriculture have been transformed by the application of science, by the use of electricity and gasoline, and by the growth of agencies of communication. Also, the established ideas of property rights are inevitably affected by these changes. "Another focus of maladjustments has its center in our ideas of property, the distribution of wealth and poverty—new forms of age-old problems."

The changes in the economic organization have forced an increase in the functions of government, creating new problems of bureaucracy and inefficiency, and these problems are likely to increase rather than to diminish.

> The problems of still closer union between government and industry are upon us. It is difficult but vital to determine what type of relationship there shall be, for all types are by no means envisaged by the terms communism and capitalism. The conception of government changes as it undertakes various community activities such as education, recreation, and health. Again, the revolutionary developments of communication have already shown the inadequacies of the present boundaries of local governments organized in simpler days, and on a larger scale foreshadow rearrangements in the relations of nations, with the possibility always of that most tragic of human problems, war.

Changes in the family and in the church are equally fundamental, but are less susceptible to appraisement. In both, changes have been taking place at varying rates, and each is peculiarly sensitive to changes in the other.

The great task before society at present, as the committee sees it, is to secure an effective coordination of the factors of change, slowing down those which are occurring too rapidly, speeding up those which lag, and providing for a harmonious and interdependent development all along the line.

Classification of Problems

ALL the problems of change, the committee holds, may be grouped into three great classes: Problems of physical heritage, or of the environment in which man finds himself; of biological inheritance, or of our racial characteristics apart from environmental influences; and of cultural environment, or of the influence of the surroundings amid which we live. In the first two, change is slow; in the third, in these days, it is rapid.

To the first group belong such matters as the proper utilization of our natural resources, the relation of production to consumption in such industries as mining, agriculture, and the like. To the field of biological heritage belong such problems as the rate of increase or decrease of the population, choice of the elements which shall enter into the population, development of certain strains and discouragement of others as against our present policy of hands off, the optimum population, its density and distribution, and so on.

In these two groups changes are relatively slow, and it is not yet certain how far some of them may be controlled by human intelligence. Our cultural environment, however, is mainly the result of human initiative, and its problems have arisen largely because of the lack of planned development. Improvements in methods of transportation, in productive machinery, and in industrial technique

and economic organization have brought forth a host of problems, all of which may be summed up in the question:

How can society improve its economic organization so as to make full use of the possibilities held out by the march of science, invention, and engineering skill, without victimizing many of its workers, and without incurring such general disasters as the depression of 1930–1932?

Lines Along Which Effort Must Be Directed

THE committee does not attempt to answer this question, but it points out some lines along which effort may be helpful. One matter which demands attention is the distribution of the costs of progress. Even before the business collapse of 1929 technological unemployment had appeared, and during the depression millions have been added to the involuntarily idle. A change in the distribution of income which would increase the purchasing power of wage earners would improve the situation enormously, but for the near future there is "little prospect of a rapid increase of wage disbursements above the 1929 level." A great expansion of exports would meet the need, but that also seems improbable. Shortening hours of work may help the immediate situation, and unemployment insurance and a system of old-age pensions would do much to relieve present and prevent future distress.

The committee is aware of the numerous objections urged against these schemes of social insurance, and of the heavy costs which they impose upon society; but it is also impressed by the inarticulate misery of the hundreds of thousands or millions of breadwinners who are deprived of their livelihoods through no fault of their own. To put the cost of unemployment squarely upon those who remain at work, upon employers, and upon the public purse makes everyone conscious of the difficulty and focuses attention upon the need of devising more constructive methods for dealing with it.

The committee points out that wage earners are not the only sufferers from technological progress, and suggest possible lines which the other classes may take as methods of alleviating the situation.

Problems of Economic Balance

TO GET the full benefit of our technological advances, some kind of equilibrium must be maintained between production and consumption. Even in good times we do not make full use of our labor power, our industrial equipment, our natural resources, and our technical skill, and yet even in the best of years, millions of families are limited to a meager living. "The effective limit upon production is the limit of what the markets will absorb at profitable prices, and this limit is set by the purchasing power at the disposal of would-be consumers." But how can this purchasing power be increased?

No business can pay wages for making goods which will not sell at a profit, and no business can make a profit if it pays wages higher than its competitors for labor of the same grade of efficiency. Of necessity, the business organizers' task is often the unwelcome one of keeping production down to a profitable level.

Always, even while part of the population is insufficiently fed, clothed, and sheltered, there is danger of glutting the markets, with the resultant lack of balance between "the supply of and the demand for the innumerable varieties of goods we make, between the disbursing and spending of money incomes, between investments in different industries and the need of industrial equipment, between

the prices of securities and the incomes they will yield, between the credit needed by business and the volume supplied by the banks." But when these balances are gravely disturbed, we have a recession in business, followed by a depression, with all that that implies in the way of suffering and loss.

Need for Economic Planning

ANY attempt to deal with the problem of economic balance or any of its ramifications calls for economic planning, but at present that phrase represents a social need rather than a social capacity.

The best that any group of economic planners can do with the data now at hand, bulky but inadequate, is to lay plans for making plans. Those who know most about the actual conduct of the work of the world realize most keenly the magnitude of the task involved in planning. To work out schemes which could be taken seriously as a guide to production and distribution would require the long collaboration of thousands of experts from thousands of places. In addition to the accumulation and sifting of countless figures not now available, planners would have to decide intricate problems of social theory, either by thinking them out, or by arbitrary rules. To gloss over the difficulties of the task is no service to mankind; to face them honestly should not discourage those who have faith in men's capacity to find their way out of difficulties by taking thought. As the task of planning economic relations is faced in detail, it is not unlikely that modest schemes will be devised which will make the present organization work more steadily. It is more in line with past experience to anticipate a long series of cumulative improvements which will gradually transform existing economic organization into something different than to anticipate a sudden revolution in our institutions.

And yet we have had an example of intensive planning in which changes in economic organization were made at a pace which, for the time, left technological changes in the rear. During the World War the Government assumed direct control over fundamental economic activities, regulating the private lives and the industrial and business enterprises of its citizens drastically, and in doing so it gave a significant illustration of the rapidity and the success with which a people can recast its basic institutions at need. "Seemingly, what engineers regard as the slow pace of change in economic organization is due more to absence of unity in will and purpose than to lack of capacity to imagine and carry out alterations." True, this was done only under the tremendous influence of the desire for victory in war.

No similar revolution could be effected in time of peace unless a similar agreement in purpose, supplying an equally definite criterion of social values, could be attained. But is it beyond the range of men's capacity some day to take the enhancement of social welfare as seriously as our generation took the winning of a war?

Current Changes in Economic Institutions

THE possibility of such an alteration in the attitude toward economic planning is confirmed by the fact that economic institutions not only can be changed, but that they have been changing during the period covered by this survey. Private property is supposed to be one of the fixed points of our system, but the right of a man to do what he will with his own has been curbed by generation after generation of Americans acting through their courts and legislators. The proclamation of emancipation and the eighteenth amendment are the two most spectacular instances of a changed attitude toward certain property rights, but in innumerable other cases a consideration of the public welfare has been held to justify interference with

property. Municipal ordinances regulate the kind of buildings which may be erected on city lots and the kinds of business which may be conducted in them. Taxes on income and inheritances differ with the size of the income or inheritance under consideration. Public utilities are subject to detailed regulation. And the transformations of property rights are not due solely to governmental activities.

> Competent legal students of modern business practice hold that quietly but surely the investor as a part owner in a corporation is being shorn in effect of almost all his privileges, except that of drawing such dividends as the directors declare and selling his stock when he sees fit. And of course the small business man often declares that his field of initiative is being gradually hemmed in by the rapid increase of great corporations.

Moreover, there is every prospect that such restrictions upon property rights, as they were understood a century ago, will continue to increase. More and more the varied economic interests of the country are likely to invoke the aid of the Government to meet emergencies, to safeguard themselves against threatened dangers, to establish standards, and to aid in extending or defending markets. Changes are taking place, they are likely to continue to take place, and obviously they can be made far more conducive to the general welfare if they are guided by understanding and good will than if they are the outcome of a confused struggle between shifting power groups.

Labor in Society

Within the framework of the economic structure are numerous groups and institutions affected by it in varying degrees. Its influence is particularly powerful on the great group called labor, on our consumption habits, and on the conditions of rural life.

Wage earners may be viewed both as factors in production and as a great group in modern society. In the first character, their productive power has increased steadily, due in part to increased use of machinery, in part to more efficient organization of work, and wiser consideration of personal factors in working relations. In the second rôle, progress has been by no means uniform. The condition of labor in industry, and the part to be played by wage earners and their organizations in determining these conditions, present serious problems. Among the possibilities suggested are developments along the lines of industrial democracy, of political democracy, and of management and plant organization. During the present century, the position of labor improved up to 1929, when labor's standard of life, as measured by purchasing power of wages, had risen about 25 per cent. "In the two years following 1929, the aggregate money earnings paid to American employees fell about 35 per cent, while the cost of living declined 15 per cent." The adequacy of wages for meeting minimum standards of living will probably long remain a matter of dispute, but the committee suggests one test which might be applied:

> Death rates are still much higher in the lower income groups than in others. Until a point is reached where the death rate does not vary according to income, it seems paradoxical to claim that wage earners are receiving a living wage.

In respect to shortening hours of work, some advance has been made during the present century, average hours of work having decreased about 15 per cent within the period. This average, how-

ever, conceals a wide diversity, hours as high as 60 a week in some industries and as low as 44 a week having been worked in 1930. But there has been no headway in the effort to reduce the terrors of unemployment, which, with physical illness and mental disease, ranks as a major cause of suffering.

Insecurity of employment is characteristic of the economic process, and no doubt if control of rates of change were possible, unemployment could be greatly reduced. Free land no longer offers an outlet. Emergency relief is inadequate. The larger problem seems to be that of making the proper application of the principle of insurance, discussed elsewhere.

The membership of American trade-unions declined during the period 1920 to 1931, "the first time in American history that the unions did not gain in membership during a period of prosperity." In respects other than membership, it is clear that the organization of labor has not gone forward as have other parts of the economic system. "Organizations of employers and of employees have changed at unequal rates of speed. Unless labor organizations show a more vigorous growth in the future other resources of society must be drawn upon to meet these problems."

Consumers and Their Perplexities

IT IS characteristic of our society, the committee point out, that we spend much time planning how best to make an income and little on how to spend it to best advantage when made. Changes which occurred during and following the war meant that consumers had more money to spend and more leisure in which to enjoy what they bought, while business men had a larger volume and a greater variety of goods to offer. No help was given the consumer in trying to learn how to buy wisely, but intensive salesmanship was devoted to inducing him to buy, without reference to wisdom. The task of making wise choices becomes harder as products are diversified, as more novelties appear in the list, as old types are dressed up in new wrappings, and as more and more conflicting advice is dinned into the buyer's ears. Moreover, there is little help available even for those who seek it. Some private ventures are being made toward supplying the information needed for advantageous buying, but the scale of services rendered is small. Home economics courses are given in a number of schools, but it is difficult for these to keep up with the rapid changes in commodities offered.

In short, the prospect of making our habits of consumption more rational and of getting the maximum satisfaction made possible by our technical progress is not bright. We may be losing ground, and perhaps we shall continue to lose for a long time to come.

Other Problems Considered

CHANGES in rural trends and population, problems connected with minority groups of the population, changes in the functions of the home and the relationships within the family, the increasing realization of the social importance of children, the change in the position of women, the development of public educational systems, changes in the attitude toward the church and the consequent change in its influence upon private and community life, changes in the structure of government, the growth of government functions, the relations of government to business, the costs of government, the whole question

of democracy, and our relations with other nations—these are some of the factors which the committee considers in relation to the trends of social development. Surveying the whole, it arrives at certain conclusions as to the principles and policy indicated.

Formal Summary of Principles

THE fundamental principles are that social problems are products of change, and that social changes are interrelated. Hence a change in one part of the social structure will affect other parts connected with it. But the effects do not always follow immediately—an induced change may lag years behind the original precipitating change. These varying delays among correlated changes often mean maladjustment. They may arise from vested interests resisting change in self-defense, from the difficulty with which men readjust familiar ideas or ideals, or from various obstacles which obstruct the transmission of impulses from man to man. These interrelated changes which are going forward in such bewildering variety and at such varying speeds threaten grave dangers with one hand, while with the other hand they hold out the promise of further betterment for mankind. The objective of any conscious control over the process is to secure a better adjustment between inherited nature and culture. The means of social control is social discovery and the wider adoption of new knowledge.

If these principles are accepted, the need for social thinking is evident. The problems posed are far too large for individual solution. "Nothing short of the combined intelligence of the Nation can cope with the predicaments here mentioned." Among the indispensable requisites to such an effort as the committee has in mind are—

Willingness and determination to undertake important integral changes in the reorganization of social life, including the economic and the political orders, rather than the pursuance of a policy of drift.

Recognition of the rôle which science must play in such a reorganization of life.

Continuous recognition of the intimate interrelationship between changing scientific techniques, varying social interests and institutions, modes of social education and action, and broad social purposes.

Specific ways and means of procedure for continuing research and for the formulation of concrete policies, as well as for the successful administration of the lines of action indicated.

The committee holds that a considerable advance may reasonably be anticipated in the near future in constructive social thinking, together with a greater recognition of the interest of government itself in the technical problems of social research and of prevision and planning. "More widely in the future than in the immediate past we may expect the growth of thinking about the meaning of the great masses of social data which we have become so expert and generous in assembling." The Social Science Research Council, already in existence, might well become the center of a movement for more and continuous generalized consideration of broader aspects of social integration and planning. Quite possibly, in time, there may emerge a National Advisory Council, "including scientific, educational, governmental, economic (industrial, agricultural, and labor) points of contact, or other appropriate elements, able to contribute to the consideration of the basic social problems of the Nation." But whatever the machinery used, it is apparent that there must be much more than mere fact finding; that is important, but equally important is the determination of what the facts mean, and of how they may be so handled that economic, governmental, moral, and cultural arrangements shall not lag too far behind the advance of basic changes. The alternative to some such plans of constuctive social initiative as are

suggested may be merely a prolongation of the policy of drift, with some readjustment as time goes on, or it may be something even less desirable:

> More definite alternatives, however, are urged by dictatorial systems in which the factors of force and violence may loom large. In such cases the basic decisions are frankly imposed by power groups, and violence may subordinate technical intelligence in social guidance.
>
> Unless there can be a more impressive integration of social skills and fusing of social purposes than is revealed by recent trends, there can be no assurance that these alternatives with their accompaniments of violent revolution, dark periods of serious repression of libertarian and democratic forms, the proscription and loss of many useful elements in the present productive system, can be averted.
>
> Fully realizing its mission, the committee does not wish to assume an attitude of alarmist irresponsibility, but on the other hand, it would be highly negligent to gloss over the stark and bitter realities of the social situation, and to ignore the imminent perils in further advance of our heavy technical machinery over crumbling roads and shaking bridges. There are times when silence is not neutrality but assent.

Recommendations Regarding Association of Governmental Officials in Industry

AT THE meeting of the executive board and certain other members of the Association of Governmental Officials in Industry, in Buffalo, May, 1932, a draft memorandum regarding the purposes of the association was approved, but left to the committee for final revision. The revised memorandum, addressed to the members of the association, is given in full below.

The existence of this body since 1883 is evidence of need of an organization of this kind but attention is drawn to the fact that there has been a lack of coherent programs and of well-considered motivation of purposes. The committee was of the opinion that insufficient understanding of the association and its principles accounts for a lack of interest on the part of many State and provincial labor administrations, and that a restatement of principles and purposes, and the formulation of new methods of organization and practical operation, may help toward a better and necessary understanding of the aims of the association.

I. Principles and Policies

ACTING in the interests of the wage earners and producers in the different States and Provinces, the association sets as its practical objective for every State and Province what the most progressive and enlightened States and Provinces set as the standard for wage earners and producers. It believes that labor should enjoy fair and humane conditions of work; that the workers should be protected in their right to combine and associate for all lawful purposes, and should be consulted on measures affecting their welfare. The association believes that these principles should motivate the labor policies of all States and Provinces and are basic to the objects of the association as set forth in Article II of its constitution, namely, the protection of women and children in industry, the safety and welfare of workers, the best possible education to meet industrial and social changes, and the maintenance of harmonious relations between employers and employees.

II. Methods

THE method by which the association seeks to attain these objectives is set forth in Article II of its constitution. In general, the method is to encourage the cooperation of all branches of Federal, State, and Provincial Governments charged with the administration of the laws protecting wage earners in industry. The association acts as a clearing house of information in its field, undertakes to promote the enactment of beneficial labor legislation, sets standards for such legislation, and encourages cooperation among the States and Provinces in compiling and disseminating statistics and information having reference to industrial problems. More particularly, the association seeks to cooperate with associations of both employers and employees on the general principle that those who are affected should be consulted.

III. Motivation

THERE are special reasons for the continued and strengthened cooperation of all States and Provinces in the work of the association. First and most important, there is the free-trade character of our respective domestic markets in which labor in one State or Province competes for jobs with labor in other jurisdictions. With the free mobility of labor promoted by the extraordinary facility of communication, this competition is active and intensified. With the slackening of industrial activity and lessening possibilities of rapid and dynamic growth, this competition is likely to become more severe. By way of illustration, reference need only be made to the present situation and the vast numbers of unemployed migratory workers crowding into our cities or drifting back to the farms. It is in such a situation as this that the maintenance of uniform minimum standards becomes a matter of the economic life or death of industry within those States and Provinces which maintain more nearly adequate standards of wages, hours, and working conditions.

This same intensification of our social problem is being increasingly manifested in the changing character of some types of social legislation and in the methods of attaining uniformity of standards. Here reference need only be made to the recent conferences on uniform minimum standards for labor legislation and on uniform minimum standards for social legislation. The movement for old-age pension legislation may be cited to show the need of more uniform action among the States and Provinces. Thus, as time goes on, unequal standards of social legislation are increasingly becoming, as has been said, the most vicious form of "social dumping" that can be practiced by any State or Province.

It is only through uniformly adequate legislation that the various States and Provinces can maintain improved standards of living within their borders. Unless standards are raised in the more backward States and Provinces it is difficult to maintain and improve standards in the more advanced States and Provinces. In short, the States and Provinces have a joint responsibility for the social welfare of both nations, and it is only by working together that they can promote a harmonious development of social welfare within their borders.

IV. Recommendations

WITH these considerations in mind, the executive board and undersigned members of the Association of Governmental Officials in Industry of the United States and Canada, meeting at Buffalo, N. Y., June 3, 1932, make the following suggestions and recommendations for furthering the interests of the association in the coming years:

(1) In view of the broad interests to be conserved by the association, it is believed that close contact with the Federal departments of labor should be maintained. For the furtherance of this recommendation, it is suggested that a special committee of the association be appointed for conference with the departments of labor on this question and for arranging such an understanding between the association and the departments of labor.

(2) In view of the close relationship and purpose between the associations mentioned below, it is suggested that the Association of Gov-

ernmental Officials in Industry of the United States and Canada hold its annual meeting at the same place and in cooperation with the Association of Public Employment Services of the United States and Canada and of the International Association of Industrial Accident Boards and Commissions. For the purpose of making this arrangement, the appointment of a special committee of the A. G. O. I. is suggested.

(3) To increase the vitality of and interest in the association, it is recommended that a special committee be appointed to enlarge the membership and secure the support of nonmember States and Provinces.

(4) In view of the far-reaching effects of labor legislation, it is recommended that special committees on uniform labor laws be set up. These committees would function in the different fields of labor legislation and present for consideration of the association drafts of model laws in their respective fields.

Summary of United States Censuses of Manufactures, 1899 to 1931

THE recent issue by the United States Bureau of the Census of the summary results of the Census of Manufactures for 1931 permits of some interesting comparisons of employment, wages, etc., in manufacturing industries in the United States in that year with conditions in earlier Census years. In the following table, such comparison is made, for each of the years for which a manufacturing census was taken from 1899 to 1931 inclusive, for the principal items reported by the Census, together with the estimated population in each of these years and certain figures derived from the basic data as given by the Census Bureau. The derived figures, computed by the Bureau of Labor Statistics, are those shown in column 4 (average annual earnings per wage earner), column 8 (value added per wage earner), column 10 (horsepower per wage earner), column 11 (per cent wages are of value added by manufacture), and column 13 (wage earners per 100,000 population).

The figures cited for average annual earnings (column 4) must be used with great caution, as noted by the Census Bureau:

> The average number of wage earners is based on the numbers reported for the several months of the year. This average probably exceeds somewhat the number that would have been required for the work performed if all had been continuously employed throughout the year, because of the fact that manufacturers report the number employed on or about the 15th day of each month, as shown by the pay rolls, usually taking no account of the possibility that some or all of the wage earners may have been on part time or for some other reason may not actually have worked the entire month. Thus it becomes necessary to give equal weight to full-time and part-time wage earners in calculating the average, and therefore the average overstates somewhat the amount of full-time employment. For this reason the quotient obtained by dividing the amount of wages by the average number of wage earners can not be accepted as representing the average wage received by full-time wage earners. In making comparisons between the figures for 1929 and those for 1931, the likelihood that the proportion of part-time employment was larger in the later than in the earlier year should be taken into account.

EMPLOYEES, EARNINGS, PRODUCTION, AND HORSEPOWER IN MANUFACTURING ESTABLISHMENTS IN THE UNITED STATES IN EACH OF THE CENSUS YEARS, 1899 TO 1931

Census year	Number of establishments	Wage earners (average number)[1]	Wages for year	Average annual earnings per wage earner	Cost of material, containers, fuel, and purchased electricity [2]	Value of products
	1	2	3	4	5	6
1899	207,514	4,712,763	$2,008,361,119	$426	$6,575,851,491	$11,406,926,701
1904	145,033	5,362,030	2,610,444,953	487	8,438,860,722	14,617,774,351
1909	175,142	6,472,616	3,427,037,884	529	12,064,573,039	20,449,588,023
1914	177,110	6,896,190	4,067,718,740	590	14,278,333,194	23,987,860,617
1919	214,383	9,000,059	10,461,786,869	1,162	37,232,702,390	62,041,795,316
1921	196,267	6,946,570	8,202,324,339	1,181	25,321,055,346	43,653,282,833
1923	196,309	8,778,156	11,009,297,726	1,254	34,705,697,749	60,555,998,200
1925	187,390	8,384,261	10,729,968,927	1,280	35,935,647,704	62,713,713,730
1927	191,866	8,349,755	10,848,802,532	1,299	35,133,136,889	62,718,347,289
1929	210,959	8,838,743	11,620,973,254	1,315	38,549,579,732	70,434,863,443
1931	174,136	6,511,647	7,225,587,464	1,110	21,420,124,017	41,333,108,998
	Index numbers					
1899	100.0	100.0	100.0	100.0	100.0	100.0
1904	69.9	113.8	130.0	114.3	128.3	128.1
1909	84.4	137.3	170.6	124.2	183.5	179.3
1914	85.3	146.3	202.5	138.5	217.1	210.3
1919	103.3	191.0	520.9	272.8	566.2	543.9
1921	94.6	147.4	408.4	277.2	385.1	382.7
1923	94.6	186.3	548.2	294.4	527.8	530.9
1925	90.3	177.9	534.3	300.5	546.5	549.8
1927	92.5	177.2	540.2	304.9	534.3	549.8
1929	101.7	187.5	578.6	308.7	586.2	617.5
1931	83.9	138.2	359.8	260.6	325.7	362.4

Census year	Value added by manufacture	Value added per wage earner	Horsepower (rated capacity) of power equipment	Horsepower per wage earner	Per cent wages are of value added	Population (estimated)	Wage earners per 100,000 population
	7	8	9	10	11	12	13
1899	$4,831,075,210	$1,025	9,960,980	2.11	41.6	74,799,000	6,301
1904	6,178,913,629	1,152	13,296,394	2.48	42.3	82,601,000	6,491
1909	8,385,014,984	1,295	18,551,737	2.87	40.8	90,691,000	7,137
1914	9,709,527,423	1,408	22,290,899	3.23	41.9	97,928,000	7,042
1919	24,809,092,926	2,757	29,327,669	3.26	42.1	105,003,000	8,571
1921	18,332,227,487	2,639	[3]	[3]	44.8	108,208,000	6,420
1923	25,850,300,451	2,945	33,094,228	3.77	42.6	111,537,000	7,870
1925	26,778,066,026	3,194	35,772,628	4.27	40.1	114,867,000	7,299
1927	27,585,210,400	3,304	38,825,681	4.65	39.3	118,197,000	7,064
1929	31,885,283,711	3,607	42,931,061	4.86	36.5	121,526,000	7,273
1931	19,912,984,981	3,058	[3]	[3]	36.3	124,070,000	5,248
	Index numbers						
1899	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1904	127.9	112.4	133.5	117.5	101.7	110.4	103.0
1909	173.6	126.3	186.2	136.0	98.1	121.2	113.3
1914	201.0	137.4	223.8	153.1	100.7	130.9	111.8
1919	513.5	269.0	294.4	154.5	101.2	140.4	136.0
1921	379.5	257.5	----------	----------	107.7	144.7	101.9
1923	535.1	287.3	332.2	178.7	102.4	149.1	124.9
1925	554.3	311.6	359.1	202.4	96.4	153.6	115.8
1927	571.0	322.3	389.8	220.4	94.5	158.0	112.1
1929	660.0	351.9	431.0	230.3	87.7	162.5	115.4
1931	412.2	298.3	----------	----------	87.3	165.9	83.3

[1] Not including salaried officers and employees.

[2] The aggregates for cost of materials and value of products include large but indeterminable amounts of duplication due to the use of the products of some industries as materials by others. This duplication occurs, as a rule, between different industries, and is not found to any great extent in individual industries.

[3] Data not obtained in census

Establishment of Industrial Councils in the Netherlands[1]

ON OCTOBER 25, 1932, the lower chamber of the States General of the Netherlands passed a law designed to regulate the relations between employers and workingmen in the industries of the country, the title of this law being "The industrial councils act" (*Bedrijfsradenwet*). No similar body has been in existence before. It was stated during the discussion which took place in the States General that the Government feels that a part of the broad application of the labor laws of the country should be left to the industries themselves.

The industrial councils may be formed in any industry or in any enterprise whenever there is reason therefor. The Government will decide in any particular case whether the need for a special council exists, but it may be assumed as a rule that only the enterprises in which the organized relations between the employers and workers are well advanced will be considered in connection with the establishment of a council.

The councils are to consist of from 6 to 20 members, half appointed by the workers' unions and the other half by the associations of the employers. On the initiative of either the Government or the councils themselves, persons not employed in the industry to which the council belongs may be added to the membership.

A council may act as a deliberative, an advisory, an executive, or an arbitrative body.

In their deliberative capacity the councils are empowered to formulate collective labor contracts, to propose suitable technical training for workmen, to consider measures for the combating of unemployment, to promote deliberations between the employers and the workmen in individual enterprises, to provide for the establishment of workmen's benefit funds of various kinds, to assemble statistical information and promote the maintenance of good relations between the employers and the workers, and to consider technical and commercial matters so far as they affect the position of the workingman, this latter being thus a step in the direction of participation of the employees in the business.

In their advisory capacity the councils are to provide information to all the departments of the National Government, the provincial governments, municipalities, and all other Government and semi-official bodies, while advice may also be given to private persons. The law furthermore provides that the councils shall be heard in case of appeals from decisions taken under certain other labor laws, particularly the labor law of 1919, the stonemason's law, and the workmen's compensation act.

In empowering the councils to act in connection with the settlement of disputes between employers and employees the intention was that such collective labor agreements, or other regulations, as may be formulated by the councils shall stipulate that disagreements which may arise therefrom, or other differences between employers and employees shall be submitted to the councils for decision. The councils will thus constitute a means for the settling of strikes and lockouts.

The date on which the act becomes effective is to be fixed by a decree.

[1] Data are from report of Charles L. Hoover, American Consul General at Amsterdam, Dec. 2, 1932.

MINIMUM WAGE

Minimum-Wage Regulations in Canadian Provinces

THE Canadian Labor Gazette gives, in its issue for December, 1932, some information concerning recent minimum-wage activities in Manitoba, Ontario, and Alberta. In Manitoba the law was amended in 1931 to include boys under 18, and during the following year regulations were made concerning women and boys employed in retail stores and in manufacturing industries in Winnipeg and Brandon. The minimum wage board has now amended and reissued an earlier order, establishing regulations governing the employment of women and boys in laundries and dyeing and cleaning establishments in Winnipeg and St. Boniface. The order lays down careful provisions as to cleanliness, lighting, ventilation, sanitation, and conditions of work where women and boys are employed, and limits hours to 9 in one day and 50 a week, except when permits for overtime are obtained from the Bureau of Labor. The conditions under which these permits may be granted and the extent to which they may be used are closely defined. Concerning wages, the following provisions are made:

The minimum wage—women.—No experienced employee of 18 years of age or over shall be paid wages at a rate less than $12 per week.

Inexperienced employees.—No inexperienced employee shall be paid wages at a rate less than $9 per week for the first six months of employment, and $10 per week for the second six months, and $11 per week for the third six months, after which period she shall be considered an experienced employee.

Part-time workers.—Employees working as part-time workers shall be paid, if experienced, at a rate of not less than 25 cents per hour, and if inexperienced, at a rate of not less than 20 cents per hour. The total number of inexperienced workers shall not exceed 25 per cent of the total experienced workers.

The minimum wage—boys.—No boy under 18 years of age shall be paid wages at a rate less than $8 per week for the first six months of employment, $9 per week for the second six months, and $10 per week after 12 months of employment.

Minimum Wage in Ontario Shoe-Shining Parlors

THE Minimum Wage Board of Ontario issued an order, effective December 1, 1932, concerning wages of female employees in shoe-shining parlors. No female employee may be paid at a rate lower than $12.50 for a week not exceeding 50 hours; if she works more than 50 hours the extra time is to be paid for at the rate of 25 cents an hour. Time spent waiting on the premises must be paid for, deductions for absence must not exceed the exact proportion of the 50 hours lost, and there must be no reduction of these rates for beginners and apprentices.

Minimum Wage for Women in Alberta Hotels

THE Minimum Wage Board of Alberta has recently amended an order concerning women employed in hotels, restaurants, boarding houses, etc., so as to establish the following scale of wages as minimums for female employees:

For experienced employees: $12.50 per week of six days and $14.50 per week of seven days (these figures were formerly $14 and $16.50).

For apprentices (week of six days): $9 per week for first month (formerly $10); $10 per week for second month (formerly $11); $11 per week for third month (formerly $12).

For apprentices (week of seven days): $10.50 per week for first month (formerly $11.50); $11.75 for second month (formerly $12.75); $13 per week for third month (formerly $14).

INSURANCE, BENEFIT, AND PENSION PLANS

Recommendations of Connecticut Old-Age Pension Commission

THE commission appointed in May, 1931, by the Legislature of Connecticut to study the subject of old-age pensions with a view to the advisability of the adoption of such a system in Connecticut, has completed its study and will submit its report at this session of the legislature. A summary of the commission's work and findings is given in a press release dated January 2, 1933.

As part of its work the commission made a sample census of the aged in the four largest cities of the State (Hartford, New Haven, Bridgeport, and Waterbury) and in 13 of the 19 cities having a population of 10,000 to 50,000. In addition the rural nonfarm populations were surveyed in 40 towns and the rural farm populations in 31 towns. Altogether the commission's study covered 10,550 of the 93,319 persons 65 years of age and over enumerated in the 1930 census, or 11.3 per cent of the total.

The survey indicated that 13.7 per cent of the total population 65 and over are in need of assistance, about 3,500 needing full support and 9,300 only partial support. Of those aged 70 and over, about 1,600 need full support and 3,700 partial support.

The commission's studies convinced it that the existing means of poor relief are unsatisfactory. The relief provided for the poor living outside of institutions is inadequate, and the town poorhouses not only are very costly to maintain [1] but the service given is inadequate.

The commission's report points out that a contributory system of old-age pensions tends to foster the individual's sense of personal responsibility to provide for his own old age, but recognizes that such a plan involves complex and expensive administrative machinery. The group therefore favors a State-wide noncontributory plan. The commission is of the opinion, however, that outdoor assistance and institutional care are so closely allied that they should be treated as parts of the same problem.

Among the recommendations of the commission (all arrived at by unanimous vote) are the following:

1. Outdoor and institutional relief should be regarded as one problem and administered and controlled by a single agency, the State department of welfare.

2. The State department of welfare should establish a number of welfare districts each of which would be supervised by a trained State welfare officer.

3. The town poor farms should be superseded as soon as possible [2] by a number of district welfare homes and infirmaries for the aged poor who need institutional care, the cost to be divided equally between the State and the localities.

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[1] Two reported their weekly costs per inmate as $33.87 and $49.34, respectively, and this sum did not include medical or hospital treatment.

[2] The commission suggests July 1, 1936, as the outside limit.

4. A system of old-age assistance should be established, by January 1, 1935, under which allowances would be paid to deserving citizens 70 years of age or over [3] not in need of institutional care. The grants under this system should not exceed $7 per week, plus $3 per week in cases involving temporary medical or nursing care. The cost of such a system should be borne equally by the State and the town of residence of the pensioner. The system should be administered by a division of old-age assistance created in the State department of welfare.

5. A commission should be created (1) to make a thorough study of all the welfare activities and institutions of the State and to report a plan for their coordination; and (2) to study the existing old-age insurance and contributory pension plans and report its conclusions and recommendations.

The commission, on the basis of its findings, is of the opinion that the adoption of the outdoor-relief plan it recommends would involve the expenditure of about $1,030,000 per year, of which the State would be liable for $515,000 plus an estimated amount of about $25,000 for administrative expenses. The report points out that this would not be an added burden on the taxpayers, since they are already paying large sums for the support of the aged poor, but would mean a net additional expense of only about $200,000.

With its report the commission submits the draft of two bills—one providing for the creation of a division of old-age assistance in the department of public welfare and the other providing for the system of old-age pensions.

The members of the commission were as follows: Charles E. Hart, jr., chairman; Martin E. Gormley; William M. Citron; John J. Egan; and Viggo E. Bird. Dr. Royal Meeker, originally a member, resigned in order to take charge of the survey and investigation on which the commission's findings are based.

Benefits of Standard National and International Unions, 1931

THE benefit services of national and international trade-unions for 1931 are shown in the accompanying table. The figures are taken from the report of the executive council of the American Federation of Labor to the 1932 convention of that organization and are given to the nearest dollar.

[3] The commission favored an eligibility age of 65 years, but raised it to 70 years in view of the prevailing economic conditions.

TABLE 1.—BENEFIT SERVICES OF STANDARD NATIONAL AND INTERNATIONAL TRADE-UNIONS, 1931

Organization	Benefits paid for—					
	Sickness	Death	Unemployment	Old-age pensions	Disability	Miscellaneous
American Federation of Labor	[1] $2,879	[1] $2,008	[1] $10,931		[1] $87	[2] $7,967
Actors and artists	[3]	[3]	[3]	[3]	[3]	[3]
Air-line pilots	[3]	[3]	[3]	[3]	[3]	[3]
Asbestos workers	[3]	[3]	[3]	[3]	[3]	[3]
Bakery and confectionery workers	126,379	28,784				15,732
Barbers	273,400	111,586				
Bill posters and billers	10,000	30,000	5,000			3,000
Blacksmiths and drop forgers		9,645				
Boiler makers and iron-ship builders	[4] 2,484	[5] 338,267				1,625
Bookbinders		52,200				11,979
Boot and shoe workers	58,340	30,550			6,750	
Brewery, flour, cereal, and soft-drink workers	[1] 8,927	[1] 12,479	[1] 4,998			[1] 4,665
Brick and clay workers		[2] 23,200				[1] 2,310
Bricklayers, masons, and plasterers		303,675		$618,181		
Bridge and structural-iron workers		60,200		[5] 190,125		
Broom and whisk makers	[3]	[3]	[3]	[3]	[3]	[3]
Building-service employees	[3]	[3]	[3]	[3]	[3]	[3]
Carmen, railway		131,700	30,000		9,200	25,000
Carpenters and joiners		628,328		1,052,685	50,750	597
Carvers, wood		6,150				682
Cigar makers		99,200			2,234	3,015
Clerks, post-office	19,550	38,250				
Clerks, railway		373,050				[1] 10,000
Clerks, retail		4,975				
Cloth hat, cap, and millinery workers	4,529		22,145			2,681
Conductors, sleeping-car		29,000			8,000	
Coopers		2,375				
Diamond workers		2,300	7,840			
Draftsmen	[3]	[3]	[3]	[3]	[3]	[3]
Electrical workers		367,550		53,552		
Elevator constructors	[1] 11,187	[1] 7,788	[1] 9,404		[1] 2,376	[1] 5,723
Engineers, locomotive	69,014	3,418,795		[6] 1,751,164		165,001
Engineers, operating		152,625				
Engravers, metal	[3]	[3]	[3]	[3]	[3]	[3]
Engravers, photo	[2] 55,650	[2] 127,088	[1] 1,665,827		2,001	244,651
Fire fighters	[3]	[3]	[3]	[3]	[3]	[3]
Firemen and enginemen, locomotive	52,516	1,034,522	35,550	321,380	1,061,900	297,000
Firemen and oilers	[1] 3,500	15,000	[1] 2,600		[1] 500	[1] 1,800
Foundry employees		700				
Fur workers	5,476	1,200	16,260	3,064		34,048
Garment workers (United)		29,100				
Garment workers, ladies'	18,150	3,450	26,200	7,050		
Glass-bottle blowers		35,000	6,500	6,000		47,500
Glass cutters, window		5,315	5,000			
Glass workers, flint		15,600				
Glove workers	[3]	[3]	[3]	[3]	[3]	[3]
Granite cutters		64,175		13,375		22,989
Hatters		30,861				
Hod carriers, building and common laborers	5,833	18,795	11,858	580	1,365	1,591
Horseshoers	[3]	[3]	[3]	[3]	[3]	[3]
Hotel and restaurant employees	36,810	[2] 40,738				10,679
Iron, steel, and tin workers		30,025				11,800
Jewelry workers	[3]	[3]	[3]	[3]	[3]	[3]
Lathers, wood, wire, and metal		35,797				
Laundry workers	[1] 4,560	[2] 5,369	[1] 2,596			
Leather workers	567	1,000	12,158			
Letter carriers	[1] 154,592	172,024				
Letter carriers, rural	[3]	[3]	[3]	[3]	[3]	[3]
Lithographers	[1] 16,287	54,200	[1] 210,000	2,000		29,232
Longshoremen	[7]	[7]	[7]	[7]	[7]	[7]
Machinists	32,500	231,359	166,500		5,000	35,750
Maintenance-of-way employees		213,325				
Marble, stone, and slate polishers, etc	[1] 1,270	[1] 15,875	[1] 22,480		[1] 2,015	[2] 1,299
Masters, mates, pilots		[1] 1,000				
Meat cutters and butcher workmen	[1] 17,393	[2] 31,267	[1] 27,600	[1] 92		[2] 5,503
Metal workers, sheet		58,700				4,923
Mine, mill, and smelter workers	11,023	3,629	110			
Mine workers (United)		[1] 500,000	[1] 1,000,000			
Molders	162,341	288,059	191,159		16,325	
Musicians			[1] 100,000			
Oil-field, gas-well, and refinery workers		4,500			500	
Painters, decorators, and paperhangers		260,763			51,075	35,866
Paper makers		6,604				

[1] Paid by local unions.
[2] Includes local benefits.
[3] No international benefits.
[4] Includes old-age exemption.
[5] Includes disability claims.
[6] Includes widows' pensions.
[7] No report received.

TABLE 1.—BENEFIT SERVICES OF STANDARD NATIONAL AND INTERNATIONAL TRADE-UNIONS, 1931—Continued

Organization	Benefits paid for—					
	Sickness	Death	Unemployment	Old-age pensions	Disability	Miscellaneous
Patternmakers	$5,343	[5] $9,100	$11,186			$8,601
Pavers, rammermen, etc.	(3)	(3)	(3)	(3)	(3)	(3)
Paving cutters		4,300				5,173
Piano and organ workers	(3)	(3)	(3)	(3)	(3)	(3)
Plasterers		73,225			$6,400	4,280
Plumbers and steam fitters	179,430	126,443	[1] 2,000,000			52,386
Polishers, metal		7,220				
Potters, operative	4,967	20,785	17,930			36,920
Powder and high-explosive workers			100			140
Printers, plate and die stamping		11,000				40
Printing pressmen	[1] 64,142	[2] 242,391	[2] 881,623	[2] $108,890	[1] 10,734	[1] 7,762
Pulp, sulphite, and paper-mill workers			1,000			
Quarry workers		1,500	908	1,300		
Railroad trainmen	[5] 483,953	2,942,437		250,023	2,197,041	123,249
Railway conductors	144,514	1,789,492	11,633		64,500	216,510
Railway employees, street and electric	[1] 95,498	[2] 902,921		122,400	18,300	
Railway mail employees		36,000			107,982	
Roofers, damp and waterproof workers		10,800				
Seamen	[1] 1,024	[1] 1,200			[1] 350	[1] 35
Siderographers	(7)	(7)	(7)	(7)	(7)	(7)
Stage employees and moving-picture-machine operators	(3)	(3)	(3)	(3)	(3)	(3)
Stereotypers and electrotypers	[1] 11,958	[2] 68,488	[1] 198,298	[1] 4,420	[1] 121	[2] 20,595
Stonecutters		21,200				2,688
Stone mounters		9,500	4,747			3,093
Switchmen		183,200			36,975	
Tailors	10,076	6,490				18,028
Teachers	(3)	(3)	(3)	(3)	(3)	(3)
Teamsters, chauffeurs, and stablemen						40,310
Telegraphers, commercial		2,400				
Telegraphers, railroad		331,980			8,900	
Textile workers (United)		3,400				
Tobacco workers	2,816	400				
Typographical union	50,505	[2] 697,333	[1] 2,175,183	[2] 1,574,462		94,758
Upholsterers		[1] 25,000	[1] 250,000			
Wall-paper crafts	[1] 840	3,600	1,400			50
Weavers, wire	750	500				11,000
Total	2,220,975	17,132,023	9,146,724	6,090,743	3,671,380	1,700,028

[1] Paid by local unions.
[2] Includes local benefits.
[3] No international benefits.
[5] Includes disability claims.
[7] No report received.
[8] Tuberculosis benefits.

Table 2 shows the expenditures for the various types of benefit for 1931 as compared with the two preceding years. The striking feature of this table is the enormous increase in the sums spent for unemployment relief, rising in the 3-year period from about one-quarter of a million dollars to more than $9,000,000.

TABLE 2.—BENEFITS PAID BY NATIONAL AND INTERNATIONAL UNIONS, 1929–1931, BY TYPE OF BENEFIT

Type of benefit	1929	1930	1931
Sickness	$2,831,937	$3,649,703	$2,220,975
Death	17,598,287	18,527,095	17,132,023
Unemployment	276,718	3,311,280	9,146,724
Old-age pensions	4,883,028	5,910,995	6,090,743
Disability	2,707,188	3,234,067	3,671,380
Miscellaneous	3,945,288	2,064,840	1,700,028
Total	32,242,446	36,697,980	39,961,873

Old-Age and Invalidity Pensions in Australia

ON OCTOBER 12, 1932, an amendment to the act concerning invalidity and old-age pensions in Australia came into force which reduces the amount of pension payable and also establishes and defines the responsibility of near relatives for the support of pensioners.

The system of noncontributory old-age pensions was established by an act, effective in 1909, which fixed the maximum pension at 10s.[1] a week. As the cost of living rose, this amount was increased by successive amendments, until in 1925 it had reached £1 (20s.) a week. In 1931, in view of the fall in the cost of living, it was reduced to 17s. 6d. per week. In September, 1932, the Government proposed a further cut of 2s. 6d. in all pensions, bringing them to a maximum of 15s. a week, and after much opposition, carried an amendment embodying the main features of the proposals, though with various modifications in details. The Employers' Review (Sydney, New South Wales), in its issue for October 31, 1932, gives a summary of the new provisions.

In effect the amendment provides that from October 12, 1932, a pensioner who is wholly dependent upon his pension, or whose other income does not exceed 2s. 6d. per week, may continue to receive 17s. 6d. weekly, but in all other cases the pension shall be limited to 15s. a week or less, depending upon the amount of the other income.

A pensioner receiving the maximum pension of 15s. a week may be allowed other income per week not exceeding 12s. 6d. If the pensioner's income, other than the pension, exceeds 12s. 6d. per week, then the weekly pension may be reduced by the same amount as the weekly income exceeds 12s. 6d.

Careful provision is made for determining what a pensioner's resources are, with penalties for any misrepresentation or suppression of facts on his part. It is also provided that after a pensioner's death the amount which has been paid to him as pension shall be regarded as a debt to the commonwealth, and shall constitute a first charge on his estate. If the heirs of the pensioner are themselves in receipt of an old-age or invalidity pension, if they are in necessitous circumstances, or if they have reached the age of 60 for men and 55 for women, the payment of the debt will be deferred until their death.

Responsibilities of Relatives

NEAR relatives of pensioners (including in this term the husband, wife, father, mother, and children over 21 years of age) must contribute a sum, based on their personal incomes, toward meeting the cost of the pensions. The commissioner of pensions has power to require from them a full statement of their incomes, which statement may be verified by official inquiry. If a relative, after being called upon for such a statement, makes a voluntary offer to contribute toward the pension, the commissioner may accept it if he thinks it sufficient, in view of the relative's means. If the relative does not make a voluntary offer, or if the commissioner considers it inadequate, a court hearing may be held, and the court may issue an order requiring a contribution of any amount deemed fit, except that it may not exceed the total amount of the pension. A refusal to comply with such an order is punishable by a fine not to exceed £50, or by imprisonment for a period not to exceed three months.

[1] At par, shilling=24.3 cents, exchange rate for Oct., 1932=17 cents.

WORKMEN'S COMPENSATION

Status of "Charity Workers" Under Workmen's Compensation Laws

BECAUSE of the large number of unemployed and the increasing amount of relief and "charity" work afforded by county and city relief organizations, the status of charity workers under the State workmen's compensation laws has become an interesting question. Should these workers, who are given employment by public organizations so that they may earn their daily bread rather than depend upon a dole or outright begging, be considered as in the same category with the regular employees of the organization, or should they be excluded from the benefits of State workmen's compensation laws if they receive an injury in the course of their work? There is no uniformity in the decisions of the different States upon this question, as the provisions of the 44 workmen's compensation acts differ and each State places its own interpretation upon these provisions.

The majority of the decisions exclude from the benefits of the workmen's compensation law those persons given work as a means of relieving unemployment. Varied reasons are given as to why the workers are not considered "employees" within the meaning of the workmen's compensation law. The three principal reasons usually followed are that (1) there is no contract of employment with the agency furnishing them the relief, (2) the employment is purely casual and not within the scope of the regular business, and (3) as the workers receive no wage, other than the poor relief, they are not entitled to compensation. In the States which have allowed compensation to charity workers the objections referred to above have been overcome by either the facts in the individual case or by the construction placed upon the statutory provision.

An interesting case[1] decided by the California Industrial Commission involved an injury to a person given employment by the Associated Charities of San Francisco. The city had an arrangement with the Associated Charities whereby the unemployed would be given employment. The Associated Charities would find persons without work and in need of food for their families and to test their fitness for work, would place them on work for the city. Otto Klotz was given employment under this arrangement; he was paid no money for the work but received three weeks' supply of groceries (paid for by the city) in return for one week's work. Klotz was injured while thus employed and he petitioned the Industrial Accident Commission of California for an award of compensation. The commission denied compensation upon the ground that—

> There was no contract of employment within the meaning of the compensation act, on the grounds that the "meeting of the minds" of the parties was upon a work test, not a contract of employment; no service, other than possibly an incidental benefit, was rendered the city and county, as the work in question would usually have been performed by regular employees without extra cost and jobs were being created solely to prevent charitable relief from taking the form

[1] Otto Klotz *v.* Associated Charities and City and County of San Francisco, 17 I. A. C. 80.

of a dole; the method of payment indicated employment was not contemplated, as compliance with the work test brought groceries to all dependents, whether one or a dozen, and the same supplies were furnished even where the family head was unable to work.

In Ohio the Industrial Commission asked the attorney general for an opinion as to whether persons receiving poor relief for performing certain labor were entitled to receive compensation when injured.[2] His opinion was that they were not under any contract of hire with the agency furnishing them relief and were therefore not entitled to receive compensation. He modified the opinion, however, by saying that if they were hired by a public officer to perform certain labor and were paid by the city in part for such services they were entitled to the benefits under the act. Prior to this opinion the commission had decided a case [3] in which Israel Greenlee, a temporary employee of the Columbus street-cleaning department, sought compensation for illness resulting from his employment. He was not paid in money by the city but received scrip which entitled him to groceries, etc., in return for his work, and for this reason the commission denied compensation, holding that he was not an employee within the meaning of the Ohio compensation act.

An opinion by Attorney Gen. M. O. Sharpe, of South Dakota,[4] held that all persons given employment through relief funds lent to South Dakota by the Reconstruction Finance Corporation would be entitled to receive benefits under the South Dakota workmen's compensation law, "assuming that the county or municipality selects the laborers on the basis of their needs, determines the work to be done and the manner of its performance, and decides when the work shall begin and terminate."

In Oregon, according to an opinion of Attorney Gen. I. H. Van Winkel to the Oregon Industrial Commission,[5] an unemployed person who is given certificates entitling him to groceries and other necessaries, in return for work done upon city property, is not an employee, as there is no contract of employment between the person receiving aid and the city.

In North Carolina, the attorney general has ruled that such workers, even though engaged in casual employment, are not necessarily outside the benefits of the act. The opinion is based upon a prior North Carolina case [6] in which the North Carolina Supreme Court had said, "It appears that the casual employees were not withdrawn from the act when the service was in the course of the trade, business, profession, or occupation of the employer." However, when the North Carolina Industrial Commission received a petition for compensation from a man injured while chopping wood for the city of Gastonia, N. C., in return for his food and clothing, they ruled that there was no contract of hire, as he could not sue for a reasonable wage, and therefore the relation of master and servant did not exist.[7]

The Virginia Industrial Commission ruled, in the case of a workman injured in the course of his employment with the Richmond Department of Public Works, while cleaning the grounds of a cemetery, that even though he was a part-time worker, employed only two days a week as a means of relieving unemployment, he was not

[2] United States Daily, Aug. 5, 1932, p. 5.
[3] Idem, Jan. 2, 1932, p. 8.
[4] Idem, Oct. 17, 1932, p. 5.
[5] Idem, June 24, 1932, p. 5.
[6] Johnson *v.* Hosiery Co., 199 N. C. 38.
[7] Hood *v.* City of Gastonia, et al.; United States Daily, Apr. 28, 1932, p. 5.

necessarily a casual employee and was as much entitled to the benefits of the workmen's compensation law as a full-time worker.[8] This decision was strengthened by the fact that he was engaged in the same class of work as other regular employees at the time he was injured, and received $2 per day as a wage.

Another interesting case involving this question was recently decided by the Supreme Court of Washington.[9] The Thurston County chapter of the Red Cross arranged with the county and certain municipalities that the latter would employ such men as were sent by the Red Cross. The work was performed under the supervision of the county or city and payment was to be made by the Red Cross in clothing, groceries, etc. The department of labor and industries of Washington attempted to collect a premium for workmen's compensation insurance, covering these workers, from the chapter of the Red Cross or from the county. The court held that the county was not required to pay the premium, since it was not an employer within the workmen's compensation act in respect to such men, in view of the fact that it had no pay roll in respect to them and that the men were employed and subject to discharge by the Red Cross. The court also refused to allow the collection of the premium from the Red Cross, holding that the act did not cover charitable organizations such as the Red Cross. The men were therefore denied the benefits of the compensation act.

The Indiana Industrial Board denied compensation to a person working for a poor-relief basket at the Indianapolis City Hospital, on the ground that since such workers were paid in poor relief and not in wages they were not entitled to compensation.[10] The commissioner of labor of Kansas has also ruled that the workmen's compensation law does not apply to "welfare workers." The Michigan Compensation Commission, however, has ruled that a city welfare-list employee paid in "scrip" rather than cash is entitled to workmen's compensation the same as any other municipal employee.[11]

On July 1, 1932, the Supreme Court of New York, Appellate Division, decided a case awarding compensation to an inmate of the Salvation Army Industrial Home, who was injured while performing menial labor, including janitor work and cooking, to support himself pending an opportunity to find employment elsewhere.[12] The court considered him on the same basis as one of the regular employees of the home, and such employees were covered by compensation insurance.

Arizona Electorate Votes to Retain State Workmen's Compensation Act

BY AN official count of 65,636 to 21,120 the electorate of Arizona at the general election of November 8, 1932, voted to retain the State industrial commission and hence the workmen's compensation law. The present compensation law of Arizona was enacted in November, 1925. The act covers all private employments in which

[8] Purcell *v.* City of Richmond; United States Daily, Nov. 30, 1932, p. 5.
[9] Thurston County Chapter American Red Cross *v.* Department of Labor and Industries, 7P. (2d), 577.
[10] United States Daily, Nov. 7, 1931, p. 5.
[11] Journal of Commerce, Dec. 29, 1932, p. 2.
[12] Hall *v.* Salvation Army, et al., 258 N. Y. S. 269.

three or more workmen are employed, with the exception of casual employees and those not engaged in the usual course of trade of the employer, farm laborers not employed on machinery, and domestic servants.

Since its inception the act has been the object of many attacks whose purpose was to repeal the law and thereby revert to the former method of instituting damage suits against the employer. These attacks culminated in an intensive campaign by which a sufficient number of signatures was obtained to secure the inclusion, on the election ballot, of the question of abolishing both the industrial commission and the workmen's compensation law.

The industrial commission of the State charged that fraud was practiced in securing many of the signatures to the referendum. Since no precedent was found in the State for the withdrawing of signatures fraudulently written, the secretary of state allowed the question to stand.

The services of various civic organizations and labor unions were enlisted to protect the act from repeal. A state-wide campaign was waged for the education of the public, the success of which was shown in the rejection of the proposed measure by the voters, by a vote of more than three to one.

The number of States which have workmen's compensation laws therefore remains at 44.

LABOR LAWS AND COURT DECISIONS

Barber-Shop Closing Law for District of Columbia

IN THE early part of the second session of the Seventy-second Congress, a law was enacted providing for the closing of barber shops one day in every seven in the District of Columbia. The law, approved on December 19, 1932, authorizes the Commissioners of the District of Columbia to enforce its provisions.

The purpose of the act, as set forth in the preamble, is to protect the health of persons engaged in the barbering trade and also to protect the health of the general public by guarding against the spread of infectious disease. The law provides that all barbering establishments must remain closed one day in every seven, beginning at midnight or sunset.

The text of the law is as follows:

> Hereafter in the District of Columbia it shall be unlawful for a person to maintain seven days consecutively any establishment wherein the occupation or trade of barbering or hair dressing (including the cutting or singeing of hair, shaving, shampooing, massaging, or manicuring) is pursued. All such establishments shall be required to remain closed one day in every seven beginning at midnight or sunset. Any person violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished by a fine not in excess of $20 or by imprisonment for not more than 60 days, or both. The Commissioners of the District of Columbia are hereby authorized and empowered to make, modify, and enforce reasonable regulations to obtain compliance with the provisions of this act, and such regulations shall have the force and effect of law within the District of Columbia.

Passage of Housing Law in Ohio

AT A special session of the Ohio Legislature, held in the fall of 1932, a law was approved by Governor White providing for the construction, etc., of dwelling houses and the renting of them at reasonable rentals. The law provides for the incorporation of limited-dividend housing companies and the creation of the Ohio State Board of Housing.

The State board is to consist of seven members—the director of public welfare, the director of public works, the director of commerce, and four other members to be appointed by the governor. The three director members are to serve without additional compensation and the four members appointed by the governor are to serve without salary though receiving actual expenses.

Section 2 of the act declares the purpose and the ends to be attained, as follows:

> It is hereby declared that it is necessary in the public interest to make provision for housing families of low income and to provide for the elimination of congested and unsanitary housing conditions which exist in certain areas of the State and which are a menace to the health, safety, morals, welfare, and reasonable comfort of the citizens of the State. The providing of such housing for families of low incomes and the correction of these conditions in such areas being now

otherwise impossible, it is essential that provision be made for the investment of private funds at low interest rates, the acquisition at fair prices of adequate parcels of land, the construction of new housing facilities under public supervision in accord with proper standards of sanitation and safety and at a cost which will permit monthly rentals which wage earners can afford to pay, and for the gradual demolition of existing unsanitary and unsafe housing.

The State board is authorized to study housing conditions and needs throughout the State; to prepare programs for the correcting of congested and unsanitary housing conditions; to investigate the cost of construction of dwelling houses, with a view to securing economy in such construction and a consequent lowering of rents; to cooperate with local authorities in development projects; and to supervise and regulate the activities of the limited-dividend housing companies organized under the law.

The board is given the power to fix the maximum rental per room to be charged. This amount is to be based on the actual cost of the project, and must provide income sufficient to meet all payments by the corporation. No project may be undertaken without the approval of the board, and all room rentals are subject to revision by the board.

Each limited-dividend housing company must consist of at least three members, and may be incorporated only for the purpose of acquiring, constructing, maintaining, and operating housing projects under the supervision of the board of housing. Shares of stock issued by such companies must have a par value, and no stockholder may receive dividends in one year in excess of 6 per cent, except that when dividends for any preceding year have not been paid the stockholder may be paid any deficiency out of surplus earned in any succeeding years.

Recommended Standard Act Regarding Mechanics' Liens

THE American Bar Association, at its meeting in Washington, D. C., in October, 1932, approved a recommended uniform mechanics' lien act prepared by The Standard State Mechanics' Lien Act Committee.[1]

The American Bar Association and the National Conference of Commissioners on Uniform State Laws, at their annual meetings in Washington, recommended the adoption of this standard act by the various State legislatures, and also by the District of Columbia and the Territories and insular possessions.

The act, as formulated, represents the results of an 8-year study by the committee appointed to draft a uniform law. The report covers 87 pages, and in addition to the text of the proposed uniform act there is included also a brief statement tracing the history of mechanics' lien legislation and a sketch of the general principles of the act.

[1] See earlier approval by National Conference of Commissioners on Uniform State Laws in Monthly Labor Review, November, 1931 (p. 85).

COOPERATION

Development of Cooperative Movement in Canada

THE fifth annual report on cooperative associations in Canada, issued by the Canadian Department of Labor, contains the membership data shown in the following table:

TABLE 1.—MEMBERSHIP OF COOPERATIVE ASSOCIATIONS IN CANADA, 1931

Type of society	Number of associations	Membership
Consumers' societies	466	49,110
Credit and savings societies	13	48,254
Community halls	92	5,749
Marketing associations:		
Livestock	38	4,106
Sheep and wool	17	10,000
Dairy products	113	68,111
Poultry products	27	35,126
Fruit and vegetables	152	12,662
Seed and grain	31	192,809
Miscellaneous commodities	99	51,702
Total	477	374,516
Miscellaneous associations	77	47,336
Grand total	1,125	524,965
Central organizations:		
Consumers'	1	[1] 42
Marketing:		
Livestock	1	[1] 324
Wool	1	[1] 17

[1] Number of affiliated societies.

In certain instances the above figures represent a greater number of local societies than is evident. Thus the 13 credit societies include 5 in Quebec, 3 in Ontario, and 5 in Alberta; in Quebec, however, the figures given in the table are for district unions having in membership nearly 200 local cooperative banks (people's banks).

The consumers' societies are distributed, by Provinces, as follows:

TABLE 2.—GEOGRAPHIC DISTRIBUTION OF CONSUMERS' COOPERATIVE SOCIETIES IN CANADA, 1932

Province	Number of societies	Membership
Alberta	43	[1] 5,628
British Columbia	39	4,264
Manitoba	70	5,293
New Brunswick	15	8,456
Nova Scotia	23	6,384
Ontario	48	6,242
Quebec	2	118
Saskatchewan	226	12,725
Total	466	49,110

[1] Includes 24 local associations.

Membership and Business of Cooperative Societies in South Africa

THE Official Year Book of the Union of South Africa, for 1930–31,[1] contains the following summary data regarding the cooperative movement in that country.

Cooperative organizations in South Africa are regulated by an act of 1922 and subsequent amending legislation. Every cooperative association is required to register under the act and to submit to the registrar who administers the act an annual report of its activities. In addition, periodical inspections of the operations of the societies are made by a staff of inspectors under the registrar. Through this same office, advice and assistance are given to cooperative enterprises regarding business methods and policies, accounting systems, etc.

The yearbook shows that at the end of 1929 there were 422 cooperative societies of all types with a combined membership of 61,116. By the end of 1930 the number had risen to 442 with a membership of 68,571; of these, all but 13 societies (with 12,999 members) were farmers' organizations.

The following table shows for the year ending June 30, 1931, the membership and business of the various types of cooperative organizations.

MEMBERSHIP AND BUSINESS OF COOPERATIVE ASSOCIATIONS IN SOUTH AFRICA, 1930–31

[Conversions into United States currency on basis of pound=$4.8665]

Type of society	Number of societies	Membership	Business	
			South African currency	United States currency
Consumers' societies	12	13,476	£577,174	$2,808,817
Agricultural associations:				
Marketing	391	56,053	5,585,820	27,183,393
Purchasing	19	3,557	552,315	2,687,841
Farming	1	8	2,043	9,942
Cold storage	1	81	----	----
Fumigation	1	36	706	3,436
Crop insurance	1	563	----	----
Total	414	60,298	6,140,884	29,884,612
Grand total	426	73,774	6,718,058	32,693,429

The Land and Agricultural Bank of South Africa is authorized to make loans to those farmers' cooperative associations which have unlimited liability. The bank's statement shows that in 1931 such agricultural cooperative societies, with a combined membership of 24,825, had received advances from the bank amounting to £2,428,137 ($11,816,529) and applications had been received for new loans aggregating £3,917,760 ($19,065,779), of which £3,892,060 ($18,940,710) were granted.

[1] Union of South Africa. Office of Census and Statistics. Official Year Book, No. 13, 1930–31. Pretoria, 1932.

WORKERS' EDUCATION AND TRAINING

Report of Federal Board for Vocational Education, 1931–32

THE contributions from State and local funds for each Federal dollar of expenditure for vocational education were as follows in the years specified: 1927–28, $2.77; 1928–29, $2.99; 1929–30, $3.04; 1930–31, $3.03; and 1931–32, $2.97, according to the annual report of the Federal Board for Vocational Education for the last-mentioned year.[1] The expenditures from Federal funds for the fiscal year ending June 30, 1932, were $8,414,834, and from State and local funds, $24,987,569, making a total of $33,402,403, an increase of $1,259,211 over the preceding 12 months.

Various items of the combined Federal, State, and local expenditures for 1931–32 are given below:

	Amount expended
Vocational agricultural education	$10,212,811
Vocational trade and industrial education, not including part-time general continuation schools	10,058,107
Trade and part-time general continuation schools	5,367,617
Vocational home economics education	5,129,039
Vocational teacher training	2,530,873
Total	[2] 33,298,447

There were 8,818 agricultural and 4,268 home economic schools or reimbursement units federally aided in 1931–32. The organization of the work of industrial classes and schools varies so from community to community that the information regarding the number of reimbursement units for such education is of little significance.

In the year 1931–32 the number of teachers of vocational courses in vocational schools federally aided was[3] 28,372, of whom 9,227 were females. The total enrollment in vocational schools and courses operated under State plans in that year was 1,176,162. In the following table the enrollment is recorded separately for federally aided schools and for schools operating under State plans and having the standards established for federally aided schools but which did not receive direct financial aid from Federal funds.

[1] The figures on expenditures, types of schools, enrollment, etc., for 1931–32 are provisional, subject to final audit.

[2] Does not include administrative expenditures from State and local funds not distributed by fields of vocational education.

[3] Includes some duplications that could not be eliminated.

TABLE 1.—ENROLLMENT IN VOCATIONAL SCHOOLS OPERATED UNDER STATE PLANS, YEAR ENDING JUNE 30, 1932[1]

Type of school	Agricultural	Trade and industrial	Home economics	Total
Schools federally aided:				
Evening	87,138	151,042	141,247	379,427
Part-time	10,792	315,708	32,501	359,001
Trade extension	10,792	44,476	32,501	87,769
General continuation		271,232		271,232
All-day	143,079	93,400	91,747	328,226
Day-unit	11,190			11,190
All types	252,199	560,150	265,495	1,077,844
Schools not federally aided:				
Evening	2,264	8,017	11,197	21,478
Part-time		1,229	6,317	7,546
Trade extension		958	6,317	7,275
General continuation		271		271
All-day	2,792	10,195	56,307	69,294
All types	5,056	19,441	73,821	98,318
Total:				
Evening	89,402	159,059	152,444	400,905
Part-time	10,792	316,937	38,818	366,547
Trade extension	10,792	45,434	38,818	95,044
General continuation		271,503		271,503
All-day	145,871	103,595	148,054	397,520
Day-unit	11,190			11,190
All types	257,255	579,591	339,316	1,176,162
Increase or decrease compared with preceding year:				
Evening	+2,088	−17,106	+23,287	+8,269
Part-time	+4,307	−26,581	−4,211	−26,485
Trade extension	+4,307	−2,143	−4,211	−2,047
General continuation		−24,438		−24,438
All-day	+13,843	+20,523	+42,639	+77,005
Day-unit	−183			−183
All types	+20,055	−23,164	+61,715	+58,606

[1] Provisional figures.

In view of the back-to-the-farm movement resulting from the depression, vocational agricultural teachers and administrators have been giving increasing recognition to the following principles:

(1) That the individual farmer can help himself directly by increasing his efficiency, cutting his costs, and adjusting his business in times of stress to a bare maintenance level; (2) that cooperative action and organization should be promoted wherever possible to secure advantages which the individual farmer can not secure single handed; and (3) that more general recognition should be given to the fact that life on a farm has many compensations since the farmer works in the open with growing things, may expect to earn a comfortable living, and enjoys a degree of independence assured by few other occupations.

In the year covered by the report all the States were deeply interested in problems of training for the unemployed. Classes have been held for the further training of trade workers already employed and other classes have been formed to train workers for new jobs when they become available. The States have refrained, however, from using trade classes to increase competition in already overcrowded industrial fields.

In 1932, as in 1931, through group projects undertaken in the vocational departments in home making, splendid service has been rendered by pupils to other families in the country by such activities as (1) preparing and distributing foods and boxes of clothing to needy families; (2) preparing and serving noon lunches to children unable to purchase sufficient food or to have it at home; (3) repairing toys for children of the community; and (4) canning for needy people foods furnished by merchants and citizens.

It is also pointed out in the report that there is great need for some measure that would effectively stop the waste of public funds in the provision of commercial education of the kind generally offered in public high schools and that would further the development of vocational training required by young people in preparation for those occupations in which they may reasonably hope to find employment. "The training of store service workers and sales people is a form of vocational education for which there is an acknowledged widespread need not now being met—a need of prime importance for advancing national welfare."

Included in the various subjects of bulletins and reports issued by the Federal Board in 1931–32 are: Supervised farm practice planning; organization of teaching procedure to be followed in evening agricultural schools—on the marketing of vegetables, the marketing of wool and mohair, and the marketing of tobacco; apprentice training for shipyard trades; vocational training costs; a training course for foremen conference leaders; and suggestions for studies and research in home economics education. Research in the teaching of retail selling and salesmanship in high schools was continued.

Vocational Rehabilitation

THE national vocational rehabilitation program has been in operation for 12 years. In all but four of the States the service is definitely established. "The experiences of these cooperating States have completely justified the initiation of and participation in the movement by the Federal Government," according to the annual report of the Federal Board for Vocational Education for the year ending June 30, 1932. "The case cost of this service is surprisingly low and the administrative cost is consistent with principles of sound economy."

The total amount expended from Federal and from State and local funds for vocational rehabilitation in the fiscal year ending June 30, 1932, exclusive of the District of Columbia, totaled $2,165,814, of which $986,148 was Federal money.

During the fiscal year 1931–32 there were 5,593 persons rehabilitated in the United States, including 43 in the District of Columbia, who are reported upon separately. The live roll of cases on June 30, 1932, was 27,698, including 295 cases for the District of Columbia.

Some detailed figures for the 5,550 persons rehabilitated in the States during the year under review are given in the following table:

TABLE 2.—NUMBER OF PERSONS REHABILITATED IN YEAR ENDING JUNE 30, 1932, CLASSIFIED BY SEX, AGE, DISABILITY, AND SERVICES RENDERED FOR THAT YEAR (EXCLUDING DISTRICT OF COLUMBIA) [1]

Classification	Number receiving specific service						Total
	Guidance, school training, and placement	Guidance, employment training, and placement	Guidance, other training, and placement	Guidance, physical reconstruction, and placement	Guidance, artificial appliance, and placement	Guidance and placement	
Sex							
Male	1,660	637	109	96	698	1,167	4,367
Female	759	82	45	43	91	163	1,183
Age							
Under 21	953	213	24	48	48	136	1,422
21 to 30	1,063	308	55	49	189	398	2,062
31 to 40	275	129	46	26	210	376	1,062
41 to 50	99	52	16	14	189	274	644
51 and over	22	14	11	2	151	146	346
Age unknown	7	3	2		2		14
Origin of disability							
Occupational accident	480	192	31	23	261	722	1,709
Public accident	511	177	29	38	368	160	1,283
Disease	1,195	295	79	73	151	366	2,159
Congenital	233	55	15	5	9	82	399
Nature of disability							
Hand	215	45	5	7	35	224	531
Hands	16	7	1		1	13	38
Arm	192	38	4	4	49	118	405
Arms	8	2	1		3		14
Foot	85	19	1	9	42	53	209
Feet	46	18	3	12	9	15	103
Leg	794	275	23	45	546	228	1,911
Legs	211	59	21	21	64	41	417
Multiple	188	46	20	10	16	98	378
Head	7	4				7	18
Cardiac	33	12		2		24	71
Vision, partial	92	25	11	11	1	137	277
Vision, total	26	35	14	4		25	104
Hearing, partial	67	11	14		3	60	155
Hearing, total	48	25	4			74	151
T. B. (pulmonary)	130	25	17	2		70	244
Back	137	41	7	5	11	61	262
Miscellaneous	124	32	8	7	9	82	262
Total	2,419	719	154	139	789	1,330	5,550

[1] Provisional figures.

Among the investigations and studies concerning rehabilitation completed by the Federal staff in the year under review were: Vocational rehabilitation—local participation in State programs; relationships between special education and vocational rehabilitation; amendments to State compensation laws; and organization and administration of State programs of vocational rehabilitation.

Outstanding current needs in State programs are reported as follows:

1. More adequate financial support of the work.
2. Better trained personnel for carrying on the service.
3. Wider scope of service to the individual.
4. Wider scope of service to special groups, such as crippled children.
5. Stronger organization of working relations with other agencies.
6. Better correlation of the rehabilitation program with other movements for the disabled.
7. More effective promotion of interest and cooperation in the program on the part of employers and the public in general.
8. Application of research methods to the promotion of greater efficiency in the work.

Report on Workers' Education Bureau, 1931-32

DURING the year 1931–32 there was a marked increase in interest and activity in workers' education in the United States, the executive council of the American Federation of Labor reported to the annual convention of that organization held in Cincinnati last November. Some workers have begun systematically to study the operation of our economic machinery and the means to improve it. This has aroused an interest in the broader aspect of the subject and has created a heightened demand upon the administration and resources of the Workers' Education Bureau.

The holding of labor institutes and radio labor programs constitute the two outstanding activities of the bureau since the 1931 annual meeting of the federation.

An account of the first labor institute on the campus of Rutgers University, New Brunswick, N. J., was given to the 1931 annual meeting of the federation, which convention recommended the Rutgers plan to labor throughout the United States. The subject of the second labor institute at Rutgers in June, 1932, was "Financial stability." While the attendance was not so large as in the preceding year because of the depression, there was great interest in the sessions. The New Jersey Federation of Labor at its last annual meeting expressed itself in favor of having an institute every year and recommended the hearty cooperation of all central bodies, building-trades councils, and local unions in the project.

In June, 1932, also, the Michigan State Federation of Labor in cooperation with the extension division of the University of Michigan and the Workers' Education Bureau held a 5-day labor institute on the campus of that university. The subject for discussion was "Stabilization of employment." Michigan labor leaders were in attendance, as were also representatives of the economic and sociological staffs of the university. Both the labor movement of the State and the university have voiced a desire to go on with the project indefinitely.

In May of last year the bureau attempted another type of labor institute, inaugurated in connection with the annual convention of the Tennessee State Federation of Labor. The officers of the State federation, in cooperation with the members of the faculty of Vanderbilt University and Peabody Teachers College, set up a 1-day institute at the Labor Temple in Nashville for a discussion of "Economics of the depression and the way out." A resolution was passed by the Tennessee State Federation of Labor recommending that this be a part of the annual activities of State federations throughout the South.

The Colorado State Federation of Labor, in cooperation with local university representatives and the Denver Labor College, held for the second year a 2-day institute at Fort Collins, over the Decoration Day week-end, on the question of the "Unemployment crisis and the way out." It proved a specially valuable meeting and was enthusiastically indorsed by the officials of the State federation of labor.

In September, 1932, a 1-day labor institute, also on "The economic crisis and the way out," was held under the auspices of the bureau at the convention of the Mississippi Federation of Labor. The inclusion of an annual institute as part of the federation's educational activities was unanimously favored by the delegates at this convention.

The labor institute, which the Wyoming Federation of Labor and the University of Wyoming had proposed to hold last June, was de-

ferred as the federation's convention date had to be changed because of the industrial situation in the State. It is expected, however, that the plans that have been further developed for the project will be put into effect later on.

At the last convention of the Illinois Federation of Labor indorsement was given a labor institute project, and plans have already been initiated for securing the cooperation of the State University.

Requests have been received from Montana, Nevada, Ohio, Oregon, and Washington from university or labor groups indicating their interest in a labor institute project or offering their facilities for holding such a conference.

Besides these institutes, summer schools for workers were conducted at Bryn Mawr; the University of Wisconsin; Hendersonville, N. C.; and the Opportunity School at Clemson College, S. C. All but one of these schools are under the auspices of joint committees, on which are representatives of men and women workers.

The second outstanding activity of the Workers' Education Bureau in the year covered by the report was the radio program, broadcast in cooperation with the National Advisory Council for Radio in Education. At the request of this council, organized in 1930, a labor committee was formed to serve as one of the council's "functional committees," consisting of the following members: Thomas Burke, John P. Frey, Thomas Kennedy, Spencer Miller, jr., Victor A. Olander, Matthew Woll, and Chester M. Wright. Mr. Miller was made secretary and Mr. Woll became the chairman.

This committee formulated the program and brought to the microphone the following series of addresses:

First series: American labor and the Nation, by William Green; how labor rose from slavery to freedom, by Victor A. Olander; how modern industry came to America, by John P. Frey; the rôle of labor in early American history, by Thomas Kennedy; a hundred years of the labor movement, by Thomas E. Burke; the policies of American labor, by Matthew Woll; what labor has done for education, by Spencer Miller, jr.; how labor has secured free speech, by Victor A. Olander; how labor shapes public opinion, by Matthew Woll; and labor in politics, by John P. Frey.

Second series: The closed and open shop, by Frank Morrison; wages and hours, by John L. Lewis; technological unemployment, by James Maloney; labor and international relations, by Daniel Tobin; labor and the news, by Chester M. Wright; collective bargaining, by Charles P. Howard; labor and judicial reform, by James Wilson; labor and immigration, by Thomas Flaherty; labor and the negro, by Philip Randolph; and labor legislation, by Paul Scharrenberg.

A mechanical transcription of the 20 lectures has also been made "to preserve in permanent form a library of records of this historical series of radio addresses."

The Workers' Education Bureau also carried on its normal work of furnishing information and guidance to local labor groups desiring to inaugurate courses of study.

The affiliated membership of the bureau voted to defer for another year its national convention, this meeting having already been postponed in the preceding year.

In closing its report on workers' education the executive council of the American Federation of Labor declared that "the bureau during the eleventh year of its educational service to American wage earners has set a new standard of achievement for its work. It is deserving of the loyal support of the American labor movement, which it has enjoyed in increasing measure."

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in December, 1932

DATA regarding industrial disputes in the United States for December, 1932, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in each year from 1927 to 1931, the number of workers involved and man-days lost for these years and for each of the months, January, 1931, to December, 1932, inclusive, as well as the number of disputes in effect at the end of each month and the number of workers involved. The number of man-days lost as given in the last column of the table, refers to the estimated number of working-days lost by workers involved in disputes which were in progress during the month or year specified.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1931, TO DECEMBER, 1932, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS 1927 TO 1931

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost in disputes existing in month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
1927: Total	734	----------	349,434	----------	37,799,394
1928: Total	629	----------	357,145	----------	31,556,947
1929: Total	903	----------	230,463	----------	9,975,213
1930: Total	653	----------	158,114	----------	2,730,368
1931: Total	894	----------	279,299	----------	6,386,183
1931					
January	57	19	10,150	2,905	181,169
February	52	29	20,473	10,677	223,660
March	49	26	26,453	28,012	476,904
April	73	39	27,135	22,687	770,512
May	115	46	28,000	15,603	400,509
June	90	47	18,795	15,223	511,926
July	73	51	49,434	56,683	612,864
August	79	36	11,019	14,759	1,157,013
September	117	65	36,092	37,427	493,649
October	77	45	34,384	29,380	1,052,095
November	62	39	13,219	13,690	355,818
December	50	21	4,145	1,318	150,064
1932					
January	79	37	11,105	4,648	117,298
February	50	30	31,140	28,691	417,966
March	51	28	31,966	11,660	685,949
April	73	34	17,707	20,066	572,121
May	79	43	43,403	49,232	1,220,202
June	64	38	16,010	23,540	927,996
July	58	37	19,657	32,597	700,985
August	72	35	27,749	27,199	728,201
September	71	31	16,676	6,834	536,262
October	38	17	8,962	1,633	118,869
November [1]	32	21	4,694	2,731	59,515
December [1]	23	28	2,694	4,007	90,869

[1] Preliminary figures subject to change.

Occurrence of Disputes

TABLE 2 gives by industrial groups, the number of strikes beginning in October, November, and December, 1932, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN OCTOBER, NOVEMBER, AND DECEMBER, 1932

Industrial group	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	October	November	December	October	November	December
Bakers	2	2		22	66	
Building trades	7	6	6	1,325	167	139
Chauffeurs and teamsters	3	2	2	76	88	275
Clerks, salesmen		1			600	
Clothing	4	4	2	2,118	387	300
Farm laborers	1	1		150	200	
Fishermen	1			6		
Food workers		3	1		1,370	100
Furniture			1			300
Laundry workers		1	1		8	80
Leather	1			50		
Longshoremen		1	1		18	40
Metal trades		1			200	
Miners	5	3	6	1,325	763	1,297
Motion-picture operators, actors, and theatrical workers	2	1		24	6	
Oil refinery and chemical workers		1			40	
Printing and publishing	1	2		10	151	
Rubber	1			60		
Street-railway workers	1			90		
Municipal workers	1			2,000		
Textiles	6	2	3	776	130	163
Other occupations	2	1		930	500	
Total	38	32	23	8,962	4,694	2,694

Size and Duration of Disputes

TABLE 3 gives the number of industrial disputes beginning in December, 1932, classified by number of workers and by industrial groups.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN DECEMBER, 1932, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIAL GROUPS

Industrial group	Number of disputes beginning in December, 1932, involving—		
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers
Building trades	4	2	
Chauffeurs and teamsters			2
Clothing			2
Food workers			1
Furniture			1
Laundry workers		1	
Longshoremen		1	
Miners		2	4
Textiles	1	1	1
Total	5	7	11

In Table 4 are shown the number of industrial disputes ending in December, 1932, by industrial groups and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN DECEMBER, 1932, BY INDUSTRIAL GROUPS AND CLASSIFED DURATION

Industrial group	Classified duration of strikes ending in December, 1932			
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 and less than 3 months
Bakers		1		
Building trades	5			
Chauffeurs and teamsters	1			
Clerks, salesmen	1			
Clothing	1			
Food workers	2			
Miners	2		1	
Motion-picture operators, actors, and theatrical workers			1	
Street-railway workers				1
Total	12	1	2	1

Conciliation Work of the Department of Labor in December, 1932

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 49 labor disputes during December, 1932. These disputes affected a known total of 1,768 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

There were 28 cases involving the law on the prevailing rate of wages. In these cases it is not always possible to show the number involved, due to lack of information as to total number required before completion of construction.

On January 1, 1933, there were 19 strikes before the department for settlement and, in addition, 62 controversies which had not reached the strike stage. The total number of cases pending was 81.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF DECEMBER, 1932

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Disputes on Government construction					1932	1932		
U. S. Public Health Building, Washington, D. C.	Controversy	Building workers	Jurisdiction	Adjusted. Awarded to ironworkers.	Nov. 10	Dec. 2	5	120
Veterans' hospital, Des Moines, Iowa.	Threatened strike.	Masonry crafts	Object to nonunion terrazzo workers.	Pending	Dec. 23		(1)	
Customshouse, Philadelphia, Pa.	Strike	Wreckers	Protest low wages; allowed 20 cents per hour; 10-hour day.	Adjusted. Allowed 25 cents per hour and 8-hour day.	Dec. 22	Dec. 22	9	31
Veterans' home, Biloxi, Miss.	Controversy	Rod workers	Posted rate not being paid	Adjusted. Men reimbursed at rates prevailing in community.	Dec. 1	Dec. 15	6	
Navy yard, Puget Sound, Bremerton, Wash.	do	Iron workers	Prevailing rates	Pending	Dec. 14		(1)	
Barksdale Field, Shreveport, La.	do	Rod workers	Rate for rod workers not set	do	Dec. 16		(1)	
Indian school, Casa Grande, Calif.	do	Iron workers	Prevailing wage	do	Dec. 14		(1)	
Arizona Indian School, Winslow, Ariz.	Strike	Bricklayers	Protest against contract whereby bricklayers earned only $4 per day.	Adjusted	do	Dec. 19	5	
Veterans' hospital, Chillicothe, Ohio.	Controversy	do	Prevailing-wage investigation	Adjusted. Allowed prevailing rate of wages.	Nov. 30	Dec. 13	5	
Federal prison, Milan, Mich.	do	Hoisting engineers	do	Adjusted. Allowed $1 per hour as prevailing wage.	do	Dec. 3	1	60
Post-office buildings:								
New Kensington, Pa.	do	Common laborers	do	Adjusted. Settled at original rate, 50 cents per hour.	Dec. 15	Dec. 27	15	
Norfolk, Va.	do	Building workers	do	Pending	Dec. 22		(1)	
Williamsport, Pa.	do	Iron workers	do	do	Dec. 15		(1)	
Marshall, Mich.	do	Building workers	do	do	Dec. 17		(1)	
Lansing, Mich.	do	do	do	do	do		(1)	
Brockton, Mass.	do	do	do	do	Dec. 19		(1)	
Pachogue, Long Island, N. Y.	do	do	do	do	Dec. 20		(1)	
Ellwood City, Pa.	do	Bricklayers	do	do	Dec. 23		6	15
Fostoria, Ohio	do	Iron workers	do	Adjusted. Allowed $1.25 per hour	Dec. 1	Dec. 19	(1)	
Fergus Falls, Minn.	do	Rod workers	do	Adjusted. Agreed on union wage scales of Minneapolis.	Dec. 16	Dec. 26	15	25
Winchester, Ind.	do	Iron workers	do	Pending	Dec. 20		(1)	
Cape Charles, Va.	do	Building workers	do	do	do		(1)	
Astoria, Oreg.	do	do	do	do	Dec. 14		(1)	

[1] Not reported.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF DECEMBER, 1932—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Disputes on Government construction—Con.								
Post-office buildings—Continued.					1932	1932		
Youngstown, Ohio	Strike	Plasterers	Alleged violation of prevailing-wage rates.	Adjusted. Satisfactory settlement.	Dec. 7	Dec. 9	7	16
Manchester, N. H	Controversy	Bricklayers and plasterers.	Prevailing-wage investigation	Pending	Dec. 1		(1)	
Wilkes-Barre, Pa	do	Building workers	do	do	do		(1)	
Atlanta, Ga	do	Carpenters and iron workers.	Jurisdiction of installation of window frames.	Adjusted. Arbitration agreed upon.	do	Dec. 11	200	
Painesville, Ohio	do	Building workers	Prevailing-wage investigation	Pending	Dec. 6		51	
Jefferson City, Mo	do	Hod carriers	do	do	Dec. 9		(1)	
Urbana, Ohio	do	Carpenters and structural-iron workers.	do	do	Nov. 30		10	20
Boston, Mass	do	Hoisting and stationary engineers.	Operation of heat plant	Adjusted. Employer selected 1 engineer for chief, and latter chose 3 others.	Nov. 11	Dec. 2	4	127
Fort McPherson, Ga	do	Building workers	Prevailing-wage investigation	Adjusted. Rates fixed by agreement and formal decision.	Oct. 1	Dec. 1	40	
Lockport, N. Y	do	Plumbers, steam fitters, sheet-metal workers, and electricians.	do	Adjusted. Plumbers and steam fitters allowed $1, sheet-metal workers and electricians 80 cents per hour.	Nov. 30	Dec. 2	10	
Albany, N. Y	do	Building workers	do	Pending	Dec. 2		(1)	
Philadelphia, Pa	do	do	do	do	Nov. 15		(1)	
Veterans' hospital, Wichita, Kans	do	Iron workers, hod carriers, laborers.	do	Adjusted. Rates fixed	Dec. 5	1933 Jan. 2	15	60
Disputes, other than Government construction								
Union Station, Dayton, Ohio	Strike	Carpenters	Wage cut from $1 to 45 cents per hour.	Adjusted. Allowed $1 per hour	Dec. 14	do	10	45
Silk workers, Hazelton, Pa	Controversy	Silk workers	Wage cut 10 per cent	Adjusted. Night shift walked out and was discontinued. Day shift doubled.	Dec. 1	1932 Dec. 13	12	
Family Theater, Des Moines, Iowa.	Lockout	Operators	Additional wage cuts	Adjusted. (Report not received)	Nov. 28	Dec. 15	4	30

Federal-aid roads, Pennsylvania and Massachusetts.	Controversy	Shovel men	Hours of labor	Pending	Nov. 1		3	43
Federal-aid road, Betchertown, Mass.	do	Road workers	do	do	do		87	87
Road and bridge, Rutland and Oakham, Mass.	do	Road and bridge workers.	Jurisdiction of bridge carpenters	do	do		(1)	
Federal-aid road, Wellesley, Mass.	do	Engineers and carpenters.	Wages and hours of labor	do	do		26	34
Federal-aid road, Wellesley and vicinity, Mass.	do	Road workers	do	do	Dec. 2		(1)	
Federal-aid road, Hingham and Cohasset, Mass.	do	do	do	do	Nov. 1		160	160
Geist & Geist, New York City	Strike	Knitters	Changes in piecework	Adjusted	Sept. 27	Dec. 1	50	5
American Theater and State Theater, East Liverpool, Ohio.	Controversy	Theater workers	Working conditions	do	Dec. 8	Dec. 12	9	
Naval mining base, Yorktown, Va.	do	Bricklayers	Wages to be paid on brick work	Pending	Nov. 25		(1)	
Funeral Associated Services, Chicago, Ill.	Strike	Chauffeurs	Wages cut from $42 to $37.50 per week.	do	Nov. 30		125	
Total							890	878

[1] Not reported.

LABOR AGREEMENTS, AWARDS, AND DECISIONS

Nine Months' Employment Guaranty for Amalgamated Clothing Workers, New York City

A RECENT agreement between the New York Joint Board of the Amalgamated Clothing Workers and employers doing alteration and repair work guarantees a minimum period of employment of nine months in each year. The guaranteed working time is to be distributed as follows: During the months of October, November, December, April, May, and June full-time employment is guaranteed, and during the months of January, February, March, July, August, and September half-time employment. The employers also agree that there shall be equal division of work in places employing more than one worker during the months when there is not full-time employment.

This agreement runs from October 1, 1932, to October 1, 1933, and may be renewed at the end of that time by mutual consent of the parties.

Extension of Railroad Pay-Deduction Agreement

REPRESENTATIVES of 200 railroads of the United States and of 21 railway unions, shortly after midnight, December 22, 1932, signed an agreement extending, until October 31, 1933, the present deduction of 10 per cent in the basic rates of pay. The agreement also provides that if either side wishes to change the basic rates, action toward that end may not be initiated before June 15, 1933. Prior to the agreement the union executives had contended for an extension of the deduction for a period of a year, and the managements wished to terminate it in six months.

The agreement, as reported in Railway Age, December 24, 1932, is as follows:

> It is agreed between the parties hereto that the original agreement is hereby extended so that up to and including October 31, 1933, 10 per cent shall be deducted from each pay check of each of the employees covered by this agreement; that basic rates of pay shall remain as under the original agreement; that this agreement shall terminate automatically October 31, 1933, and that neither party prior to June 15, 1933, will serve notice of a desire to change or extend this agreement, or of an intended change in basic rates of pay, such change or extension to become effective on or after November 1, 1933; it being further agreed that in the event that such notice should be served by any party hereto between June 15, 1933, and November 1, 1933, the proceedings thereunder shall be conducted pursuant to the provisions of the railway labor act and such proceedings shall be conducted nationally in order that the matter may be handled to a conclusion as expeditiously as reasonably possible.

Reduction in Wage Scale of Typographical Workers, New York City

THE New York Newspaper Publishers' Association and Typographical Union No. 6, on July 25, 1932, agreed to submit their wage dispute to arbitration. The agreement under which they were operating expired July 1, 1929, and the parties had, since that time, been unable to come to terms on a new agreement.

The publishers demanded a 20 per cent reduction in the wage scale, and the union asked for the inauguration of the 6-hour day and 6-day week (instead of the present 45-hour week) and also a wage increase of $3 a week.

The Publishers' Association and Typographical Union No. 6 agreed to the following stipulations regarding the arbitration:

The board of arbitration shall decide the wage rates for day work within the limits of the wage rates proposed by the respective parties and likewise for night work and for the third shift.

The board shall determine the unit of hours to constitute such shifts within the limits of hours proposed by the respective parties, provided, that nothing in the foregoing shall preclude the discussion of the number of days to constitute a week's work witnin the limits proposed by the respective parties.

The board shall pass upon the merits of each proposal as thus stated and its decision shall be binding for one year from its date. All provisions of the present contract to remain as at present, other than sections relating to hours and wages, except:

Section 13 shall be amended by striking out the entire paragraph in the present contract and substituting the following:

"SECTION 13. No member of the chapel is exempt from taking his overtime off, except the foreman of each shift; provided, a foreman performing mechanical work exclusively on overtime shall not be exempt. In extreme emergencies such as fire, flood, or disaster, overtime may be waived."

Section 16 shall be amended by striking out the entire paragraph in the present contract and substituting the following:

"SECTION 16. Extras may be put on in machine offices either day or night, and may be put on at one hiring or separate daily hirings for not to exceed three days or nights in any one week, if others are available. When in accordance with the above, an extra is hired for more than one day or night, he must, if he fails to work for the period for which he is hired, supply a substitute. In giving out extra work, men discharged to reduce the force, who have established in the office their competency to perform the work in question, are to be given preference. Extras shall receive for each day or night, 50 cents in addition to the regular scale."

The arbitration board was composed of Louis Wiley and Hopewell L. Rogers, representing the publishers; Sigmund Oppenheimer and W. N. P. Reed, representing the union; and John T. Saulter, chairman.

The board convened on October 31, 1932, but at the end of 10 days was unable to reach a decision on the matters in dispute, and therefore referred all the questions at issue to the chairman of the board for determination.

On December 1, 1932, the chairman rendered a decision, setting the hours at 7½ per day for the day and night shifts and at 7 hours per day for the third or lobster shift. The wage scale he fixed at $1.30 per hour ($58.50 per week) for the day shift, $1.366 per hour ($61.50 per week) for the night shift, and $1.521 per hour ($64.50 per week) for the third shift. These hours and rates went into effect at 7 a. m., December 4, 1932, and continue for one year.

LABOR TURNOVER

Labor Turnover in Manufacturing Establishments

THE Bureau of Labor Statistics presents herewith quarterly labor turnover rates for manufacturing as a whole and for 10 separate manufacturing industries for the fourth quarter of 1932.

The rates herewith published represent the number of changes per 100 employees that took place during the three months ending December 31, 1932.

The form of average used for compiling turnover rates by the Bureau of Labor Statistics is the weighted arithmetic mean. The indexes for manufacturing as a whole were compiled from reports made to the bureau by representative establishments in approximately 148 census industries classifications. These firms employ over 1,000,000 people. In the 10 industries for which separate indexes are presented, reports were received from representative plants employing at least 25 per cent of the workers in each industry as shown by the Census of Manufactures of 1927.

In addition to the separation rates and the accession rate, the bureau shows the net turnover rate. The net turnover rate means the rate of replacement, which is the number of jobs that are vacated and filled per 100 employees. In a plant that is increasing its force the net turnover rate is the same as the separation rate, because, while more people are hired than are separated from their jobs, the number hired above those leaving is due to expansion and can not be justly charged to turnover. On the other hand, in a plant that is reducing its force, the net turnover rate is the same as the accession rate, because, while more people are separated from the pay roll than are hired, the excess of separations over accessions is due to a reduction of force and therefore can not be logically charged as a turnover expense.

As data for turnover rates are based on reports from a limited number of firms, these rates should not be confused with the indexes of changes in employment, as compiled and published monthly by the Bureau of Labor Statistics based on reports from a much larger number of establishments.

Table 1 shows for all industries the total separation rate, subdivided into the quit, discharge, and lay-off rates, together with the accession rate and net turnover rate per quarter for the years 1931 and 1932. The accession rate was higher during the last quarter of 1932 than during the last quarter of 1931, but lower than during the third quarter of 1932. The quit, discharge, and lay-off rates were lower for the fourth quarter of 1932 than for either the third quarter of 1932 or the fourth quarter of 1931.

Table 2 shows the quit, discharge, lay-off, accession, and net turnover rates for automobiles, boots and shoes, brick, cotton, iron and steel, foundries and machine shops, furniture, men's clothing, sawmills, and slaughtering and meat packing for the fourth quarter of 1931 and for the third and fourth quarters of 1932.

TABLE 1.—QUARTERLY TURNOVER RATES IN SELECTED FACTORIES IN 148 INDUSTRIES

Period	Separation rates								Accession rate		Net turnover rate	
	Quit		Discharge		Lay-off		Total separation					
	1931	1932	1931	1932	1931	1932	1931	1932	1931	1932	1931	1932
First quarter	2.43	2.28	0.66	0.58	5.45	8.18	8.54	11.04	9.53	9.65	8.54	9.65
Second quarter	3.28	2.15	.81	.49	8.29	12.92	12.38	15.56	8.23	7.80	8.23	7.80
Third quarter	3.32	2.10	.71	.45	10.07	10.78	14.10	13.33	9.27	12.55	9.27	12.55
Fourth quarter	2.37	1.77	.54	.43	10.65	8.75	13.56	10.95	9.68	10.50	9.68	10.50

The highest quarterly turnover rate in the fourth quarter of 1932 was 18.83 per 100 employees in brick manufacturing. The lowest turnover rate, 4.44, was shown by the iron and steel industry. Cotton manufacturing had the highest quit rate and furniture the lowest. The highest discharge rate occurred in sawmills and the lowest in iron and steel. The highest lay-off rate was shown in brick manufacturing, and the lowest in iron and steel. The highest accession rate occurred automobile industry and the lowest in iron and steel industry.

TABLE 2.—QUARTERLY TURNOVER RATES IN SPECIFIED INDUSTRIES

Class of rates	Fourth quarter, 1931	Third quarter, 1932	Fourth quarter, 1932	Fourth quarter, 1931	Third quarter, 1932	Fourth quarter, 1932	Fourth quarter, 1931	Third quarter, 1932	Fourth quarter, 1932	Fourth quarter, 1931	Third quarter, 1932	Fourth quarter, 1932
	Automobiles			Boots and shoes			Brick			Cotton manufacturing		
Quit	2.82	1.29	1.51	3.13	3.01	2.24	1.26	0.93	0.64	3.83	3.46	3.30
Discharge	.90	.35	.73	.58	.77	.45	1.10	.39	.24	1.03	.80	.77
Lay-off	29.20	40.61	15.88	12.69	4.77	6.17	36.49	27.44	39.54	11.32	5.62	7.20
Total separation	32.92	42.25	18.12	16.40	8.55	8.86	38.85	28.76	40.42	16.18	9.88	11.27
Total accession	33.45	7.90	28.04	7.15	16.43	6.38	14.76	22.27	18.83	10.97	31.05	13.55
Net turnover	32.92	7.90	18.12	7.15	8.55	6.38	14.76	22.27	18.83	10.97	9.88	11.27
	Foundries and machine shops			Furniture			Iron and steel			Men's clothing		
Quit	1.28	0.75	0.64	1.90	1.11	0.60	1.96	1.22	1.17	2.46	3.14	2.14
Discharge	.48	.25	.21	1.00	.24	.23	.17	.14	.14	.30	.16	.17
Lay-off	11.99	10.23	8.42	13.99	9.48	11.19	4.63	5.32	4.62	11.96	2.73	7.79
Total separation	13.75	11.23	9.28	16.89	10.83	12.02	6.76	6.68	5.93	14.72	6.03	10.10
Total accession	6.21	7.32	6.40	10.46	20.88	9.78	4.20	3.98	4.44	7.17	22.54	8.54
Net turnover	6.21	7.32	6.40	10.46	10.83	9.78	4.20	3.98	4.44	7.17	6.03	8.54

Class of rates	Sawmills			Slaughtering and meat packing		
Quit	2.70	3.49	1.79	3.38	2.57	2.12
Discharge	1.01	.75	1.23	1.16	1.11	.64
Lay-off	27.30	15.77	27.96	15.54	14.77	17.42
Total separation	31.01	20.01	30.98	20.08	18.45	20.18
Total accession	18.54	17.94	16.96	23.77	20.24	17.91
Net turnover	18.54	17.94	16.96	20.08	18.45	17.91

HOUSING

Building Operations in Principal Cities of the United States, December, 1932

THERE was a decrease of 19.5 per cent in indicated expenditures for total building operations, comparing reports received by the Bureau of Labor Statistics from 348 identical cities of the United States having a population of 25,000 or over, for the months of November and December, 1932.

The cost figures in the following tables apply to the cost of the building as estimated by the prospective builder on applying for his permit to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are shown. The States of Illinois, Massachusetts, New Jersey, New York, and Pennsylvania, through their departments of labor, are cooperating with the United States Bureau of Labor Statistics in the collection of these data.

Comparisons, November and December

TABLE 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 348 identical cities of the United States, by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 348 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN NOVEMBER AND DECEMBER, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	November, 1932	December, 1932	Per cent of change	November, 1932	December, 1932	Per cent of change
New England	$797,680	$606,800	−23.9	$770,811	$468,791	−39.2
Middle Atlantic	1,627,761	1,434,060	−11.9	9,181,140	5,619,051	−38.8
East North Central	542,550	437,130	−19.4	5,060,521	1,469,290	−71.0
West North Central	526,574	214,425	−59.3	581,900	163,813	−71.8
South Atlantic	556,005	600,579	+8.0	4,049,932	7,553,563	+86.5
South Central	423,888	185,006	−56.4	1,230,400	705,088	−42.7
Mountain and Pacific	1,370,493	855,746	−37.6	5,241,414	4,727,391	−9.8
Total	5,844,951	4,333,746	−25.9	26,116,118	20,706,987	−20.7

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	November, 1932	December, 1932	Per cent of change	November, 1932	December, 1932	Per cent of change	
New England	$617,194	$907,073	+47.0	$2,185,685	$1,982,664	−9.3	52
Middle Atlantic	2,260,083	1,861,088	−17.7	13,068,984	8,914,199	−31.8	70
East North Central	720,349	537,440	−25.4	6,323,420	2,443,860	−61.4	92
West North Central	246,803	322,491	+30.7	1,355,277	700,729	−48.3	25
South Atlantic	887,827	819,596	−7.7	5,493,764	8,973,738	+63.3	40
South Central	461,164	317,771	−31.1	2,115,452	1,207,865	−42.9	34
Mountain and Pacific	858,669	794,744	−7.4	7,470,576	6,377,881	−14.6	35
Total	6,052,089	5,560,203	−8.1	38,013,158	30,600,936	−19.5	348

Indicated expenditures for total building operations for the month of December was $30,600,936. According to reports of permits issued, there was a decrease of 25.9 per cent in indicated expenditures for new residential buildings; a decrease of 20.7 per cent for new nonresidential buildings; and a decrease of 8.1 per cent in indicated expendi-

tures for additions, alterations, and repairs, comparing December with November. The South Atlantic was the only geographic division showing an increase in expenditures for total building operations. Indicated expenditures for additions, alterations, and repairs increased in the New England States and in the West North Central States.

Table 2 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 348 identical cities of the United States, by geographic divisions.

TABLE 2.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 348 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN NOVEMBER AND DECEMBER, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	November, 1932	December 1932	November, 1932	December, 1932	November, 1932	December, 1932	November, 1932	December, 1932
New England	143	102	502	267	1,673	1,072	2,318	1,441
Middle Atlantic	322	200	966	615	3,815	2,674	5,103	3,489
East North Central	112	95	836	439	1,473	1,043	2,421	1,577
West North Central	139	50	392	155	537	327	1,068	532
South Atlantic	144	147	459	278	2,237	1,569	2,840	1,994
South Central	172	112	312	229	1,351	867	1,835	1,208
Mountain and Pacific	355	258	1,034	687	2,602	2,090	3,991	3,035
Total	1,387	964	4,501	2,670	13,688	9,642	19,576	13,276
Per cent of change		−30.5		−40.7		−29.6		−32.2

There were decreases in the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations, comparing December with November.

Table 3 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the estimated cost of such dwellings, for which permits were issued in 348 identical cities during November and December, 1932, by geographic divisions.

TABLE 3.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 348 IDENTICAL CITIES IN NOVEMBER AND DECEMBER, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	November, 1932	December, 1932	November, 1932	December, 1932	November, 1932	December, 1932	November, 1932	December, 1932
New England	$730,780	$591,800	128	100	$66,900	$15,000	26	4
Middle Atlantic	1,169,061	848,510	261	173	366,200	133,800	101	40
East North Central	490,350	387,130	103	94	44,700	0	13	0
West North Central	521,074	164,425	137	49	1,000	0	1	0
South Atlantic	553,005	564,079	142	139	3,000	20,000	4	7
South Central	385,504	177,756	163	110	23,684	7,250	12	4
Mountain and Pacific	1,161,993	694,596	321	234	139,500	79,850	53	34
Total	5,011,767	3,428,296	1,255	899	644,984	255,900	210	89
Per cent of change		−31.6		−28.4		−60.3		−57.6

TABLE 3.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 348 IDENTICAL CITIES IN NOVEMBER AND DECEMBER, 1932, BY GEOGRAPHIC DIVISIONS—Continued

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	November, 1932	December, 1932	November, 1932	December, 1932	November, 1932	December, 1932	November, 1932	December, 1932
New England	0	0	0	0	$797,680	$606,800	154	104
Middle Atlantic	$86,500	$451,750	27	146	1,621,761	1,434,060	389	359
East North Central	7,500	0	3	0	542,550	387,130	119	94
West North Central	4,500	0	4	0	526,574	164,425	142	49
South Atlantic	0	10,500	0	14	556,005	594,579	146	160
South Central	9,500	0	8	0	418,688	185,006	183	114
Mountain and Pacific	50,500	81,300	29	48	1,351,993	855,746	403	316
Total	158,500	543,550	71	208	5,815,251	4,227,746	1,536	1,196
Per cent of change		+242.9		+193.0		−27.3		−22.2

The total indicated expenditures for all kinds of housekeeping dwellings were lower in December than in November. The total number of families provided for also showed a decrease, comparing December with November. In the case of 1-family dwellings and 2-family dwellings, there was a decrease in both the estimated expenditures and in the number of families provided for. Indicated expenditures for apartment houses were more than three times as great in December as in November, while the number of families provided for in this class of dwellings, according to permits issued in December, was also nearly three times as high as the families provided for, according to permits issued in November.

Table 4 shows the index number of families provided for, the index numbers of indicated expenditures for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs, and for total building operations.

TABLE 4.—INDEX NUMBERS OF FAMILIES PROVIDED FOR AND OF THE ESTIMATED COST OF BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN PRINCIPAL CITIES OF THE UNITED STATES

[Monthly average, 1929=100]

Month	Families provided for	Estimated cost of—			
		New residential buildings	New nonresidential buildings	Additions, alterations, and repairs	Total building operations
1929					
December	35.9	30.2	74.3	66.1	51.7
1930					
December	45.0	37.6	64.3	53.5	50.1
1931					
December	14.7	11.8	32.9	27.3	22.3
1932					
January	14.4	10.2	25.0	25.8	18.2
February	13.0	9.1	16.5	26.7	14.3
March	15.4	10.7	18.1	27.0	15.7
April	13.4	9.7	25.0	32.0	18.8
May	11.3	7.9	39.3	27.3	23.3
June	10.6	7.9	24.6	28.2	17.3
July	8.2	5.6	16.1	22.6	12.0
August	9.7	6.8	15.7	24.9	12.6
September	10.8	7.5	11.4	21.7	10.7
October	9.5	6.6	12.6	22.8	11.0
November	6.4	4.9	21.8	14.9	13.0
December	5.0	3.6	17.3	13.7	10.5

The index numbers of indicated expenditures for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs, and for total building operations were all lower for the month of December, 1932, than for either November, 1932, or December, 1931.

Comparisons of Indicated Expenditures for Public Buildings

TABLE 5 shows the value of contracts awarded for public buildings by the various agencies of the United States Government and by the various State governments, during the months of December, 1931, and November and December, 1932, by geographic divisions.

TABLE 5.—CONTRACTS FOR PUBLIC BUILDINGS LET BY THE UNITED STATES GOVERNMENT AND BY STATE GOVERNMENTS DURING DECEMBER, 1931, AND NOVEMBER AND DECEMBER, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	Federal			State		
	December, 1931	November, 1932	December,[1] 1932	December, 1931	November, 1932	December,[1] 1932
New England	$299,911	$150,603	$44,798	$1,627,557	$46,539	$232,381
Middle Atlantic	5,145,865	3,618,527	1,223,082	7,835,287	1,999,180	3,059,844
East North Central	358,476	4,218,834	386,032	2,308,755	1,160,757	162,539
West North Central	2,682,490	266,501	9,450	17,348	63,700	7,365
South Atlantic	406,979	4,016,870	7,671,476	383,100	177,022	169,714
South Central	767,962	2,706,390	625,242	462,172	170,944	134,453
Mountain and Pacific	2,248,129	1,256,226	1,745,042	217,128	16,973	339,551
Total	11,909,812	16,233,951	11,705,122	12,851,347	3,635,115	4,105,847

[1] Subject to revision.

The value of contracts awarded by the Federal Government during December, 1932, was $11,705,122. The value of contracts awarded by the various State governments during December was $4,105,847.

Whenever a contract is awarded by either the Federal or a State Government in a city having a population of 25,000 or over, the number or cost of such building is included in the tables shown herein.

Comparisons, December, 1932, with December, 1931

TABLE 6 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 339 identical cities of the United States having a population of 25,000 or over, for the months of December, 1931, and December, 1932, by geographic divisions.

TABLE 6.—ESTIMATED COST, OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 339 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN DECEMBER, 1931, AND DECEMBER, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	December, 1931	December, 1932	Per cent of change	December, 1931	December, 1932	Per cent of change
New England	$1,900,015	$562,800	−70.4	$2,433,323	$451,866	−81.4
Middle Atlantic	4,978,216	1,416,860	−71.5	17,791,401	5,559,751	−68.8
East North Central	1,517,777	437,130	−71.2	5,167,983	1,469,090	−71.6
West North Central	1,262,685	214,425	−83.0	3,105,996	163,813	−94.7
South Atlantic	1,147,923	598,579	−47.9	728,260	7,552,168	+937.0
South Central	1,063,962	185,006	−82.6	4,681,887	705,088	−84.9
Mountain and Pacific	2,768,539	854,746	−69.1	4,183,282	4,727,241	+13.0
Total	14,639,117	4,269,546	−70.8	38,092,132	20,629,017	−45.8

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	December, 1931	December, 1932	Per cent of change	December, 1931	December, 1932	Per cent of change	
New England	$835,909	$888,630	+6.3	$5,169,247	$1,903,296	−63.2	49
Middle Atlantic	4,082,355	1,834,331	−55.1	26,851,972	8,810,942	−67.2	68
East North Central	1,184,118	537,440	−54.6	7,869,878	2,443,660	−68.9	21
West North Central	956,756	322,491	−66.3	5,325,437	700,729	−86.8	95
South Atlantic	1,015,533	813,183	−19.9	2,891,716	8,963,930	+210.0	38
South Central	499,809	317,771	−36.4	6,245,658	1,207,865	−80.7	34
Mountain and Pacific	1,367,515	793,144	−42.0	8,319,336	6,375,131	−23.4	34
Total	9,941,995	5,506,990	−44.6	62,673,244	30,405,553	−51.5	339

According to reports received from these 339 cities, there were decreases in indicated expenditures for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs, and for total construction, comparing December, 1932, with December, 1931.

Table 7 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 339 identical cities having a population of 25,000 or over, for the months of December, 1931, and December, 1932, by geographic divisions.

TABLE 7.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 339 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN DECEMBER, 1931, AND DECEMBER, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	December, 1931	December, 1932	December, 1931	December, 1932	December, 1931	December, 1932	December, 1931	December, 1932
New England	270	95	529	261	1,236	1,052	2,035	1,408
Middle Atlantic	516	197	1,152	617	2,852	2,653	4,520	3,467
East North Central	268	95	1,037	437	1,665	1,043	2,970	1,575
West North Central	296	50	415	155	617	327	1,328	532
South Atlantic	241	143	538	269	1,900	1,518	2,679	1,930
South Central	282	112	388	231	1,226	865	1,896	1,208
Mountain and Pacific	634	257	980	685	2,759	2,085	4,373	3,027
Total	2,507	949	5,039	2,655	12,255	9,543	19,801	13,147
Per cent of change		−62.1		−47.3		−22.1		−33.6

Decreases in the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations were shown in all geographic divisions, comparing December, 1932, with December, 1931.

Table 8 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the cost of such dwellings, for which permits were issued in 339 identical cities in December, 1932, and December, 1931, by geographic divisions.

TABLE 8.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 339 IDENTICAL CITIES IN DECEMBER, 1931, AND DECEMBER, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	December, 1931	December, 1932	December, 1931	December, 1932	December, 1931	December, 1932	December, 1931	December, 1932
New England	$1,245,715	$547,800	232	93	$228,800	$15,000	60	4
Middle Atlantic	2,044,086	831,310	347	170	1,180,130	133,800	285	40
East North Central	1,340,777	387,130	245	94	133,000	0	37	0
West North Central	1,084,235	164,425	283	49	70,450	0	22	0
South Atlantic	1,017,123	562,079	225	135	7,800	20,000	5	7
South Central	920,580	177,756	261	110	108,382	7,250	34	4
Mountain and Pacific	2,212,444	693,596	562	233	241,045	79,850	100	34
Total	9,864,960	3,364,096	2,155	884	1,969,607	255,900	543	89
Per cent of change		−65.9		−59.0		−87.0		−83.6

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	December, 1931	December, 1932	December, 1931	December, 1932	December, 1931	December, 1932	December, 1931	December, 1932
New England	$425,500	0	143	0	$1,900,015	$562,800	435	97
Middle Atlantic	1,639,000	$451,750	428	146	4,863,216	1,416,860	1,060	356
East North Central	44,000	0	16	0	1,517,777	387,130	298	94
West North Central	8,000	0	4	0	1,162,685	164,425	309	49
South Atlantic	105,000	10,500	46	14	1,129,923	592,579	276	156
South Central	35,000	0	17	0	1,063,962	185,006	312	114
Mountain and Pacific	315,050	81,300	139	48	2,768,539	854,746	801	315
Total	2,571,550	543,550	793	208	14,406,117	4,163,546	3,491	1,181
Per cent of change		−78.9		−73.8		−71.1		−66.2

Indicated expenditures for all types of dwellings were much lower in December, 1932, than in December, 1931. The number of family-dwelling units provided in each type of dwelling also showed a decrease comparing these two periods.

Details by Cities

TABLE 9 shows the estimated cost of new residential buildings, of new nonresidential buildings, of total building operations, and the number of families provided for in new dwellings in each of the 348 cities for which reports were received in December, 1932.

No reports were received from Bangor, Me.; Holyoke, Mass.; Pawtucket, R. I.; Anderson, Ind.; Bay City and Port Huron, Mich.; Appleton, Wis.; Savannah, Ga.; Fort Smith, Ark.; Ashland, Ky.; Meridian, Miss.; Muskogee and Okmulgee, Okla.; Laredo, Tex.; Santa Monica, Calif.; Butte, Mont.; and Everett and Tacoma, Wash.

Permits were issued during December, 1932, for the following important building projects: In Elmira, N. Y., for a State reformatory to cost nearly $800,000; in the Borough of the Bronx for an office building to cost over $250,000; in the Borough of Brooklyn for two apartment houses to cost over $330,000; in the Borough of Manhattan for a factory building to cost $550,000; in Hamilton, Ohio, for a school building to cost nearly $250,000; in San Francisco, Calif., for a public-works building to cost over $2,500,000; in Indianapolis, Ind., for an institutional building to cost nearly $250,000; in Binghamton, N. Y., for a State hospital to cost nearly $250,000; in Rochester, N. Y., for a State hospital to cost over $300,000; and in San Diego, Calif., for a school building to cost over $200,000.

Contracts were awarded by the Supervising Architect of the United States Treasury Department for a post office in New Castle, Pa., to cost over $200,000; for an archives building in Washington, D. C., to cost over $5,500,000; for a central heating plant in Washington, D. C., to cost nearly $1,500,000; and for a Forest Service building in Ogden, Utah, to cost over $200,000.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, DECEMBER, 1932

New England States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Connecticut:					Mass.—Con.				
Bridgeport	$20,500	$2,300	$30,990	5	Lynn	0	$450	$8,642	0
Bristol	0	100	3,325	0	Malden	$9,000	0	17,457	3
Greenwich	13,000	170,200	193,750	2	Medford	32,000	3,250	41,625	8
Hartford	11,600	1,023	213,760	2	New Bedford	0	2,900	6,850	0
Meriden	0	3,169	9,303	0	Newton	86,500	9,000	135,825	10
New Britain	14,000	875	19,160	1	Pittsfield	11,500	6,350	19,200	2
New Haven	81,300	825	96,760	6	Quincy	3,500	2,630	12,568	1
Norwalk	17,500	1,045	32,485	4	Revere	3,000	400	8,000	1
Stamford	0	1,780	7,340	0	Salem	13,000	2,800	21,720	3
Torrington	3,000	4,625	23,825	1	Somerville	0	1,375	5,477	0
Waterbury	3,000	650	8,550	1	Springfield	6,750	860	10,010	3
West Hartford	8,000	15,525	40,593	1	Taunton	0	3,100	5,688	0
Maine:					Waltham	0	525	1,180	0
Lewiston	0	1,700	1,700	0	Watertown	0	2,100	3,700	0
Portland	12,000	1,320	18,215	3	Worcester	25,350	3,945	49,447	7
Massachusetts:					New Hampshire:				
Arlington	32,000	1,300	34,675	5	Concord	3,500	500	5,500	1
Beverly	0	825	25,775	0	Manchester	12,100	2,425	21,720	3
Boston [1]	41,500	176,395	498,478	9	Rhode Island:				
Brockton	3,600	1,900	12,990	2	Central Falls	0	0	1,275	0
Brookline	74,000	800	77,025	5	Cranston	34,500	2,795	41,055	9
Cambridge	0	1,025	8,135	0	East Providence	4,300	4,470	11,332	2
Chelsea	0	0	1,670	0	Newport	7,800	700	27,672	2
Chicopee	0	1,350	2,050	0	Providence	0	14,350	111,846	0
Everett	0	0	1,650	0	Woonsocket	15,000	250	24,550	1
Fall River	0	7,232	8,689	0	Vermont:				
Fitchburg	0	5,052	5,052	0	Burlington	4,000	100	4,100	1
Haverhill	0	775	3,905	0					
Lawrence	0	750	750	0					
Lowell	0	975	5,625	0	Total	606,800	468,791	1,982,664	104

[1] Applications filed.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, DECEMBER, 1932—Continued

Middle Atlantic States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
New Jersey:				
Atlantic City	0	$900	$14,693	0
Bayonne	0	1,300	6,700	0
Bloomfield	$28,000	500	31,000	6
Camden	0	17,825	19,947	0
Clifton	20,000	2,750	25,200	5
East Orange	11,000	1,020	14,932	2
Elizabeth	24,000	64,200	88,200	6
Garfield	2,300	250	2,900	1
Hackensack	0	51,000	56,987	0
Hoboken	0	0	7,090	0
Irvington	5,300	1,500	7,590	1
Jersey City	26,500	5,835	49,585	7
Kearny	0	0	700	0
Montclair	30,800	300	53,058	4
Newark	0	37,700	79,260	0
New Brunswick	0	278	313	0
Orange	0	1,000	3,119	0
Passaic	21,000	15,750	48,432	5
Paterson	0	9,320	61,614	0
Perth Amboy	0	5,500	6,750	0
Plainfield	0	1,075	3,540	0
Trenton	13,500	4,385	70,805	2
Union City	0	0	5,855	0
West New York	0	0	4,500	0
West Orange	17,200	8,300	46,270	3
New York:				
Albany	71,500	2,100	86,483	8
Amsterdam	0	1,850	1,850	0
Auburn	7,000	200	7,555	2
Binghamton	5,500	243,380	284,320	1
Buffalo	3,800	41,391	89,013	2
Elmira	0	776,328	779,723	0
Jamestown	1,200	200	2,120	2
Kingston	0	3,250	3,575	0
Lockport	0	0	590	0
Mount Vernon	10,000	715	17,868	1
Newburgh	0	17,400	17,400	0
New Rochelle	0	2,650	14,144	0
New York—Continued.				
New York City—				
The Bronx[1]	$160,000	$446,550	$746,540	40
Brooklyn[1]	486,850	545,250	1,306,634	138
Manhattan[1]	0	1,150,800	1,535,500	0
Queens[1]	178,100	462,693	830,841	56
Richmond[1]	8,500	20,581	63,571	2
Niagara Falls	9,400	5,615	19,936	3
Poughkeepsie	4,000	5,200	9,200	1
Rochester	4,900	338,812	384,872	1
Schenectady	0	1,010	9,838	0
Syracuse	19,000	1,700	31,385	5
Troy	28,200	6,200	37,750	6
Utica	16,000	4,600	121,000	4
Watertown	0	305	885	0
White Plains	24,000	5,600	31,050	2
Yonkers	91,800	51,227	174,307	12
Pennsylvania:				
Allentown	0	350	2,300	0
Altoona	0	1,312	2,884	0
Bethlehem	9,000	0	9,000	1
Butler[2]	0	675	875	0
Chester	0	0	700	0
Easton	0	0	2,600	0
Erie	3,470	1,450	8,560	1
Hazleton	0	2,016	4,071	0
Johnstown	0	0	1,985	0
Lancaster	0	600	5,500	0
McKeesport	0	40,300	43,161	0
Nanticoke	3,240	0	30,240	1
New Castle	0	235,425	236,000	0
Norristown	0	184,530	184,761	0
Philadelphia	46,300	474,927	628,347	12
Pittsburgh	16,500	6,159	65,785	6
Reading	0	475	5,401	0
Scranton	0	1,750	14,783	0
Wilkes-Barre	26,200	124,842	166,431	10
Wilkinsburg	0	2,745	2,745	0
Williamsport	0	173,750	174,773	0
York	0	1,450	6,307	0
Total	1,434,060	5,619,051	8,914,199	359

East North Central States

Illinois:				
Alton	0	$12,800	$16,150	0
Aurora	$500	0	1,714	1
Belleville	3,200	0	7,400	2
Berwyn	0	750	750	0
Bloomington	0	0	0	0
Chicago	19,000	19,755	97,111	2
Cicero	0	290	290	0
Danville	1,150	3,000	8,620	2
Decatur	0	2,250	2,250	0
East St. Louis	500	15,160	21,535	1
Elgin	9,500	150	10,750	2
Evanston	17,500	500	23,000	2
Granite City	0	0	0	0
Joliet	0	1,000	13,163	0
Maywood	0	0	0	0
Moline	0	0	777	0
Oak Park	0	0	0	0
Peoria	9,300	2,600	14,010	2
Quincy	4,000	4,025	8,325	2
Rockford	0	800	3,100	0
Rock Island	0	275	6,395	0
Springfield	10,500	535	21,965	2
Waukegan	8,000	0	8,500	2
Indiana:				
East Chicago	0	0	0	0
Elkhart	$2,000	0	$3,265	1
Evansville	0	$1,050	7,616	0
Fort Wayne	12,500	9,200	27,950	3
Gary	0	0	350	0
Hammond	0	3,050	3,050	0
Indianapolis	3,650	243,008	269,538	3
Kokomo	0	1,480	1,530	0
Lafayette	12,000	0	12,000	2
Marion	0	0	800	0
Michigan City	0	90	240	0
Mishawaka	0	175	1,015	0
Muncie	0	3,360	6,515	0
Richmond	0	0	1,000	0
South Bend	0	32,525	34,695	0
Terre Haute	0	75	4,225	0
Michigan:				
Ann Arbor	0	900	7,145	0
Battle Creek	4,000	750	5,435	2
Dearborn	4,800	150	7,100	1
Detroit	32,400	16,268	120,892	7
Flint	0	1,065	8,440	0

[1] Applications filed.

[2] Not included in totals.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, DECEMBER, 1932—Continued

East North Central States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Michigan—Con.				
Grand Rapids	0	$3,000	$5,910	0
Hamtramck	0	0	200	0
Highland Park	0	2,500	4,460	0
Jackson	0	3,000	3,400	0
Kalamazoo	0	210	2,305	0
Lansing	$1,500	4,725	6,350	1
Muskegon	0	60	2,865	0
Pontiac	0	400	3,900	0
Royal Oak	0	200	200	0
Saginaw	1,630	125	2,605	1
Wyandotte	5,000	75	8,337	1
Ohio:				
Akron	3,000	1,470	15,625	1
Ashtabula	0	4,100	4,740	0
Canton	0	4,375	6,440	0
Cincinnati	126,600	180,395	384,685	20
Cleveland	76,500	300,903	437,178	5
Cleveland Heights	14,050	66,100	80,965	3
Columbus	1,000	5,100	15,150	1
Dayton	4,700	196,682	209,448	2
East Cleveland	0	0	550	0
Elyria	500	150	1,200	1
Hamilton	20,850	288,788	344,308	8
Lakewood	0	580	875	0
Lima	0	150	150	0
Lorain	0	$3,675	$3,800	0
Mansfield	0	290	803	0
Marion	0	0	0	0
Massillon	0	1,820	1,938	0
Middletown	0	2,300	3,515	0
Newark	0	500	500	0
Norwood	0	0	500	0
Portsmouth	0	0	275	0
Springfield	0	852	1,387	0
Steubenville	0	0	250	0
Toledo	0	525	10,338	0
Warren	0	750	3,090	0
Youngstown	$1,000	3,000	11,055	1
Wisconsin:				
Eau Claire	6,000	0	6,000	4
Fond du Lac	0	139	3,339	0
Green Bay	3,800	800	4,750	2
Kenosha	0	0	490	0
Madison	7,000	125	13,661	2
Milwaukee	9,500	13,755	41,068	2
Oshkosh	0	0	225	0
Racine	0	0	2,650	0
Sheboygan	0	125	2,089	0
Superior	0	210	1,335	0
West Allis	0	300	350	0
Total	437,130	1,469,290	2,443,860	94

West North Central States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Iowa:				
Burlington	0	$50,000	$51,400	0
Cedar Rapids	$1,300	1,830	10,570	2
Council Bluffs	2,600	780	128,115	2
Davenport	0	2,200	6,589	0
Des Moines	4,400	2,775	11,590	3
Dubuque	0	1,500	3,894	0
Ottumwa	0	6,500	23,700	0
Sioux City	2,000	915	29,015	1
Waterloo	0	675	2,025	0
Kansas:				
Hutchinson	0	241	1,201	0
Kansas City	1,800	18,800	22,240	2
Topeka	0	621	1,121	0
Wichita	3,500	4,460	18,495	1
Minnesota:				
Duluth	0	675	8,080	0
Minneapolis	45,325	43,780	108,015	13
St. Paul	16,800	9,566	43,504	3
Missouri:				
Joplin	0	$200	$4,350	0
Kansas City	$12,000	12,535	52,235	4
Springfield	12,800	0	12,800	2
St. Joseph	500	575	2,580	1
St. Louis	30,000	2,835	71,410	7
Nebraska:				
Lincoln	0	670	3,670	0
Omaha	74,200	1,330	76,480	6
North Dakota:				
Fargo	0	0	0	0
South Dakota:				
Sioux Falls	7,200	350	7,650	2
Total	214,425	163,813	700,729	49

South Atlantic States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Delaware:				
Wilmington	$8,800	$50	$22,667	2
District of Columbia:				
Washington	305,600	7,087,075	7,581,280	46
Florida:				
Jacksonville	16,300	31,190	78,985	4
Miami	4,950	14,260	52,994	6
Orlando	0	1,200	5,360	0
Pensacola	2,000	835	8,468	4
St. Petersburg	0	3,200	13,600	0
Tampa	3,300	1,655	18,052	4
West Palm Beach	0	560	1,340	0
Georgia:				
Atlanta	23,900	2,813	46,047	19
Augusta	0	99,530	100,779	0
Columbus	0	0	937	0
Macon	1,500	250	6,875	1
Maryland:				
Baltimore	$113,000	$81,400	$448,000	32
Cumberland	0	0	0	0
Hagerstown	0	8,675	12,875	0
North Carolina:				
Asheville	0	5,265	18,302	0
Charlotte	21,450	2,250	63,846	6
Durham	18,250	0	22,895	4
Greensboro	0	3,125	5,591	0
High Point	750	100	4,850	1
Raleigh	0	8,515	9,515	0
Wilmington	0	8,100	13,600	0
Winston-Salem	0	580	11,415	0
South Carolina:				
Charleston	5,300	40	9,870	4
Columbia	8,700	129,330	142,768	4
Greenville	8,500	30	17,150	1
Spartanburg	0	0	1,620	0

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, DECEMBER, 1932—Continued

South Atlantic States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Virginia:					West Virginia:				
Lynchburg	$10,700	$300	$18,368	5	Charleston	$8,000	$175	$24,731	3
Newport News	1,500	1,315	5,317	1	Clarksburg	0	1,200	2,000	0
Norfolk	15,979	38,198	130,413	3	Huntington	5,800	260	7,310	3
Petersburg	0	175	175	0	Parkersburg	0	450	1,625	0
Portsmouth	1,800	150	3,065	1	Wheeling	2,000	4,050	8,325	1
Richmond	12,500	17,152	48,964	5	Total	600,579	7,553,563	8,973,738	160
Roanoke	0	110	6,764	0					

South Central States

Alabama:					Tennessee:				
Birmingham	$3,500	$1,100	$14,383	2	Chattanooga	0	0	$8,412	0
Mobile	3,300	2,000	11,070	3	Johnson City	0	$1,300	2,600	0
Montgomery	0	0	3,770	0	Knoxville	0	11,603	17,935	0
Arkansas:					Memphis	$1,300	12,350	54,470	1
Little Rock	0	168,875	175,628	0	Nashville	3,650	800	18,686	5
Kentucky:					Texas:				
Covington	2,400	200	3,200	1	Amarillo	0	10,880	16,383	0
Lexington	0	160	13,084	0	Austin	33,887	5,148	62,079	12
Louisville	4,500	12,825	32,500	1	Beaumont	584	370	12,446	1
Newport	0	5,250	7,550	0	Dallas	17,575	10,924	65,383	12
Paducah	0	0	0	0	El Paso	0	21,429	28,539	0
Louisiana:					Fort Worth	13,300	51,850	74,750	12
Baton Rouge	0	8,975	11,228	0	Galveston	16,300	81,450	101,819	10
Monroe	0	550	550	0	Houston	51,050	182,632	239,532	16
New Orleans	14,950	55,150	89,327	5	San Angelo	0	0	1,850	0
Shreveport	1,350	639	10,276	3	San Antonio	13,300	14,107	36,363	25
Mississippi:					Waco	4,060	22,596	27,586	5
Jackson	0	250	7,838	0	Wichita Falls	0	2,285	5,394	0
Oklahoma:					Total	185,006	705,088	1,207,865	114
Enid	0	1,900	2,865	0					
Oklahoma City	0	4,550	22,444	0					
Tulsa	0	12,940	27,925	0					

Mountain and Pacific States

Arizona:					California—Con.				
Phoenix	$2,100	$550	$6,195	2	Stockton	$1,000	$95	$5,233	2
Tucson	14,700	1,230	21,079	3	Vallejo	0	300	2,760	0
California:					Colorado:				
Alameda	8,000	160,521	175,709	2	Colorado Springs	2,500	640	7,015	1
Alhambra	10,500	1,600	19,275	4	Denver	31,000	42,825	99,380	6
Bakersfield	1,500	795	9,661	1	Pueblo	0	1,335	2,730	0
Berkeley	41,950	13,745	93,716	8	Montana:				
Fresno	0	2,243	18,136	0	Great Falls	0	100	1,700	0
Glendale	52,450	25,940	79,830	14	New Mexico:				
Huntington Park	1,000	150	2,750	1	Albuquerque	0	241,275	250,061	0
Long Beach	32,300	87,850	143,110	12	Oregon:				
Los Angeles	378,654	294,709	865,476	167	Portland	17,500	15,515	72,505	4
Oakland	43,233	61,489	136,834	15	Salem	650	11,137	13,108	1
Pasadena	6,100	14,895	41,157	2	Utah:				
Riverside	1,300	4,680	8,034	2	Ogden	0	229,500	229,500	0
Sacramento	11,500	5,642	28,754	4	Salt Lake City	3,500	44,960	79,466	1
San Bernardino	0	1,000	11,005	0	Washington:				
San Diego	35,269	458,000	631,617	14	Bellingham	700	1,750	3,625	1
San Francisco	115,000	2,940,630	3,161,558	34	Seattle	27,400	35,415	84,340	10
San Jose	9,440	22,390	36,850	2	Spokane	500	1,025	13,970	1
Santa Ana	3,500	425	11,502	1					
Santa Barbara	2,500	3,035	10,240	1	Total	855,746	4,727,391	6,377,881	316

WAGES AND HOURS OF LABOR

Hours and Earnings in the Men's Clothing Industry, 1930 and 1932

THIS article presents briefly the results of a study of wages and hours of labor of wage earners in the men's clothing industry in the United States, made by the Bureau of Labor Statistics in 1932, and also comparative figures for certain specified years from 1911 to 1932 in which studies have been made by the bureau. Summary figures in Table 1 for the last two years studied show that full-time hours per week for the wage earners covered in 1932 averaged 44.4, or 0.1 of an hour per week more than in 1930; earnings per hour averaged 50.6 cents in 1932, or 19.5 cents per hour less than in 1930; and full-time earnings per week averaged $22.47 in 1932, or $8.58 less than in 1930. The 1932 data will be published later in greater detail in bulletin form.

The 1932 data cover a representative weekly pay-roll period for each establishment in one of the months from July to November, inclusive, and were obtained by agents of the bureau directly from the pay rolls and other records of 243 representative establishments in 12 large cities and in two groups of small cities, one group in northeastern New Jersey outside Newark, and the other in eastern Pennsylvania outside Philadelphia.

Excluding Buffalo and Newark and the two groups of small cities in New Jersey and Pennsylvania for which separate data are not available, the localities covered in this report represent 66 per cent of the wage earners in the men's clothing industry in the United States reported in the 1929 Census of Manufactures, and the 33,051 wage earners for whom 1932 data were obtained form 22 per cent of the total number in the industry.

The establishments covered in the study were those engaged in the manufacture, by the usual factory method, of men's outer garments—coats, pants, vests, and overcoats. They include only establishments making what is commonly known as men's ready-made clothing. Special-order and merchant-tailor establishments were not included.

Trend of Hours and Earnings, 1911 to 1932

TABLE 1 shows average full-time hours per week, earnings per hour, and full-time earnings per week for each year from 1911 to 1914 for wage earners in selected occupations only, and for wage earners in all occupations for 1914, 1919, and for each even year from 1922 to 1932. Index numbers of these averages with the 1913 average taken as the base, or 100 per cent, are also shown in the table.

The averages for each of the specified years from 1919 to 1932 for wage earners in all occupations found in the industry are comparable, one year with another, but are not comparable with the averages for wage earners in selected occupations only for the years from 1911 to 1914, because the latter include only a specified part, while the former include all occupations in the industry.

Index numbers are given in the table to furnish comparable figures for the industry from year to year, from 1911 to 1932. The index of average full-time hours per week, of average earnings per hour, or of average full-time earnings per week for each of the years from 1911 to 1914 for selected occupations is the per cent that the average for the year is of the average for 1913. The index for 1919 or for any of the years from 1922 to 1932 for all occupations in the industry was computed by increasing or decreasing the 1914 index for selected occupations only by the per cent that the average for the year is more or less than the 1914 average for all occupations.

TABLE 1.—AVERAGE HOURS AND EARNINGS, WITH INDEX NUMBERS THEREOF, IN THE MEN'S CLOTHING INDUSTRY, 1911 TO 1932

Year	Number of establishments	Number of wage earners	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers (1913=100) of—		
						Average full-time hours per week	Average earnings per hour	Average full-time earnings per week
Selected occupations:								
1911	80	13,751	54.4	$0.229	$12.30	104.6	86.7	90.2
1912	117	18,168	54.7	.231	12.49	105.2	87.5	91.6
1913	133	19,874	52.0	.264	13.63	100.0	100.0	100.0
1914 [1]	153	20,118	51.6	.263	13.47	99.2	99.6	98.8
All occupations:								
1914 [1]	153	24,597	51.3	.256	13.06			
1919	134	19,919	47.9	.446	21.68	92.7	173.5	159.5
1922	112	25,013	44.1	.728	31.91	85.3	283.2	241.4
1924	152	27,681	44.1	.760	33.52	85.3	295.7	253.6
1926	198	33,659	44.3	.750	33.23	85.7	291.8	251.4
1928	200	35,873	44.0	.731	32.16	85.1	284.4	243.2
1930	212	33,404	44.3	.701	31.05	85.7	272.7	234.8
1932	243	33,051	44.4	.506	22.47	85.8	196.9	170.0

[1] 2 sets of averages are shown for 1914—1 for selected occupations and the other for all occupations in the industry. The 1911 to 1914 averages for selected occupations are comparable 1 year with another, as are those for all occupations 1 year with another from 1914 to 1932.

Hours and Earnings, 1930 and 1932, by Occupation and Sex

TABLE 2 shows, for 1930 and 1932, the average number of days on which wage earners worked in one week, average full-time and actual hours and earnings in one week, average earnings per hour, and the per cent of full time worked in one week for the wage earners in each of the more important occupations in the industry, and for a group designated "other employees." This group does not include any occupation of enough importance to warrant occupational tabulation.

The days worked in one week by males ranged, by occupation, in 1930 from an average of 4.7 for operators on vests, and pants pressers to 5.3 for garment examiners (shop and stock-room), and "other employees"; in 1932 they ranged from 4.7 for cloth cutters, hand and machine, to 5.3 for garment examiners (shop and stock-room), and hand sewers on coats. The days worked by females in 1930 ranged from 3.8 for pants basters to 5.2 for bushelers and tailors, coat pressers, and shapers, while in 1932 the range was from 4.3 for pants basters to 5.5 for coat pressers and shapers.

Full-time hours per week of males ranged in 1930 from 44 for cloth cutters, hand and machine, and shapers to 44.7 for pants pressers;

in 1932 they ranged from 44.1 for hand sewers on coats to 44.6 for pants pressers and vest pressers. Those for females ranged in 1930 from 43.4 for coat fitters and trimmers to 44.8 for bushelers and tailors, and in 1932 from 44 for vest basters, pants pressers, and vest pressers to 44.9 for operators on pants.

Hours actually worked in one week by males ranged in 1930 from 36.2 for pants pressers to 42.2 for garment examiners (shop and stock-room), and in 1932 from 34.4 for vest pressers to 42.7 for hand sewers on coats. Those worked by females ranged in 1930 from 27.7 for pants basters to 42.5 for bushelers and tailors, and in 1932 ranged from 22.4 for pants basters to 44.9 for shapers.

The per cent of full time worked by males ranged in 1930 from 81 for pants pressers to 95 for garment examiners (shop and stock-room), and in 1932 from 77.1 per cent for vest pressers to 96.8 per cent for hand sewers on coats; and that of females ranged in 1930 from 62.8 per cent for pants basters to 94.9 per cent for bushelers and tailors, and in 1932 from 50.3 per cent for pants basters to 101.1 per cent for shapers.

Average earnings per hour of males ranged in 1930 from 71.5 cents for "other employees" and 79.5 cents for garment examiners (shop and stock-room) to $1.139 for cloth cutters, hand and machine, and in 1932 from 51.3 cents for "other employees" and 55.4 cents for pants pressers to 92 cents for cloth cutters, hand and machine. Those of females ranged in 1930 from 39.7 cents for garment examiners (shop and stock-room) to 62.1 cents for vest basters, and in 1932 ranged from 30 cents for "other employees" and hand sewers on pants to 45.4 cents for bushelers and tailors. Average earnings per hour of males and of females were less in 1932 for all occupations and for the group of "other employees" than in 1930.

Average full-time earnings per week of males in 1930 ranged from $31.82 for "other employees" and $35.30 for garment examiners (shop and stock-room) to $50.12 for cloth cutters, hand and machine, and in 1932 ranged from $22.83 for "other employees" and $24.71 for pants pressers to $40.66 for cloth cutters, hand and machine. Those of females ranged in 1930 from $17.47 for garment examiners (shop and stock-room) to $27.26 for vest basters, and in 1932 from $13.32 for hand sewers on pants to $20.11 for bushelers and tailors.

Average actual earnings in one week of males ranged in 1930 from $29.17 for pants pressers to $43.88 for cloth cutters, hand and machine, and in 1932 from $19.30 for pants pressers to $33.45 for cloth cutters, hand and machine. Those of females ranged in 1930 from $13.87 for coat fitters and trimmers to $23.73 for bushelers and tailors, and in 1932 from $7.20 for pants basters to $16.94 for bushelers and tailors and pants pressers.

TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK, IN THE MEN'S CLOTHING INDUSTRY, 1930 AND 1932, BY OCCUPATION AND SEX

Occupation	Sex	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
							Average number	Per cent of full time			
Basters, coat	M	1930	92	1,499	5.1	44.3	39.8	89.8	$0.834	$36.95	$33.20
	M	1932	120	1,734	5.0	44.2	39.1	88.5	.561	24.80	21.95
	F	1930	101	1,253	5.1	44.5	38.7	87.0	.522	23.23	20.21
	F	1932	114	1,401	5.1	44.5	37.7	84.7	.357	15.89	13.48
Basters, pants	F	1930	14	59	3.8	44.1	27.7	62.8	.590	26.02	16.34
	F	1932	10	45	4.3	44.5	22.4	50.3	.322	14.33	7.20
Basters, vest	F	1930	41	147	4.6	43.9	34.8	79.3	.621	27.26	21.61
	F	1932	54	136	4.6	44.0	33.3	75.7	.425	18.70	14.15
Total, basters	F	1930	126	1,459	5.0	44.4	37.8	85.1	.534	23.71	20.19
	F	1932	142	1,582	5.0	44.5	36.9	82.9	.362	16.11	13.35
Bushelers and tailors	M	1930	101	505	5.2	44.2	40.6	91.9	.824	36.42	33.50
	M	1932	103	338	4.9	44.3	37.8	85.3	.627	27.78	23.70
	F	1930	34	81	5.2	44.8	42.5	94.9	.558	25.00	23.73
	F	1932	23	60	5.0	44.3	37.3	84.2	.454	20.11	16.94
Cutters, cloth, hand and machine	M	1930	87	1,620	5.1	44.0	38.5	87.5	1.139	50.12	43.88
	M	1932	96	1,396	4.7	44.2	36.3	82.1	.920	40.66	33.45
Cutters, lining and trimming [1]	M	1932	80	423	5.1	44.2	38.7	87.6	.779	34.43	30.19
Examiners, garments (shop and stock room)	M	1930	96	329	5.3	44.4	42.2	95.0	.795	35.30	33.60
	M	1932	115	338	5.3	44.5	42.0	94.4	.646	28.75	27.17
	F	1930	54	228	5.1	44.0	39.7	90.2	.397	17.47	15.78
	F	1932	50	152	5.2	44.5	40.1	90.1	.333	14.82	13.37
Fitters or trimmers (coat)	M	1930	103	256	5.1	44.4	40.5	91.2	.988	43.87	40.01
	M	1932	103	219	5.0	44.2	39.5	89.4	.808	35.71	31.95
	F	1930	14	62	4.7	43.4	34.1	78.6	.407	17.66	13.87
	F	1932	12	26	5.1	44.2	35.9	81.2	.365	16.13	15.12
Hand sewers, coat	M	1930	61	359	5.0	44.1	39.4	89.3	.888	39.16	34.95
	M	1932	74	385	5.3	44.1	42.7	96.8	.591	26.06	25.22
	F	1930	119	3,902	5.0	44.2	37.6	85.1	.496	21.92	18.63
	F	1932	138	4,025	4.9	44.4	37.1	83.6	.345	15.32	12.80
Hand sewers, pants	F	1930	71	776	4.5	44.4	33.2	74.8	.452	20.07	15.00
	F	1932	54	515	4.5	44.4	31.0	69.8	.300	13.32	9.29
Hand sewers, vest	F	1930	72	934	4.8	44.2	35.8	81.0	.494	21.83	17.67
	F	1932	67	887	4.8	44.5	35.2	79.1	.337	15.00	11.85
Total, hand sewers	F	1930	185	5,612	4.9	44.2	36.7	83.0	.490	21.66	17.97
	F	1932	190	5,427	4.9	44.4	36.2	81.5	.340	15.10	12.32
Operators, coat	M	1930	115	2,784	5.0	44.3	40.3	91.0	.958	42.44	38.61
	M	1932	136	2,926	5.1	44.2	40.4	91.4	.687	30.37	27.73
	F	1930	95	2,911	4.9	43.8	35.2	80.4	.570	24.97	20.06
	F	1932	120	3,086	5.0	44.5	37.3	83.8	.407	18.11	15.18
Operators, pants	M	1930	78	1,405	4.8	44.4	38.4	86.5	.859	38.14	32.99
	M	1932	77	1,345	5.0	44.2	39.2	88.7	.594	26.25	23.28
	F	1930	81	2,372	4.7	44.7	34.3	76.7	.529	23.65	18.16
	F	1932	87	2,484	4.7	44.9	32.6	72.6	.396	17.78	12.88
Operators, vest	M	1930	56	550	4.7	44.1	36.5	82.8	.965	42.56	35.21
	M	1932	59	506	5.0	44.4	37.3	84.0	.691	30.68	25.78
	F	1930	62	1,134	4.7	43.8	33.9	77.4	.585	25.62	19.81
	F	1932	58	1,050	4.9	44.6	33.7	75.6	.396	17.66	13.35
Total, operators	M	1930	193	4,739	4.9	44.3	39.3	88.7	.930	41.20	36.55
	M	1932	214	4,777	5.0	44.2	39.7	89.8	.662	29.26	26.27
	F	1930	165	6,417	4.8	44.1	34.6	78.5	.558	24.61	19.31
	F	1932	190	6,620	4.9	44.7	35.0	78.3	.401	17.92	14.03

[1] Included with "other employees" in 1930.

TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK, IN THE MEN'S CLOTHING INDUSTRY, 1930 AND 1932, BY OCCUPATION AND SEX—Continued

Occupation	Sex	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
							Average number	Per cent of full time			
Pressers, coat	M	1930	121	3,452	5.0	44.2	39.1	88.5	$0.867	$38.32	$33.93
	M	1932	140	3,868	4.9	44.3	37.8	85.3	.608	26.93	22.97
	F	1930	8	176	5.2	44.1	40.4	91.6	.486	21.43	19.64
	F	1932	7	160	5.5	44.1	43.3	98.2	.325	14.33	14.08
Pressers, pants	M	1930	89	784	4.7	44.7	36.2	81.0	.805	35.98	29.17
	M	1932	92	852	4.8	44.6	34.9	78.3	.554	24.71	19.30
	F	1930	7	49	4.9	44.0	35.9	81.6	.534	23.50	19.17
	F	1932	7	59	5.2	44.0	38.8	88.2	.436	19.18	16.94
Pressers, vest	M	1930	71	402	4.8	44.1	36.5	82.8	.889	39.20	32.46
	M	1932	70	423	4.8	44.6	34.4	77.1	.585	26.09	20.13
	F	1930	18	90	4.9	44.0	35.6	80.9	.522	22.97	18.61
	F	1932	11	82	5.2	44.0	37.1	84.3	.390	17.16	14.47
Total, pressers	M	1930	203	4,638	5.0	44.3	38.4	86.7	.859	38.05	33.00
	M	1932	222	5,143	4.9	44.4	37.0	83.3	.598	26.55	22.13
	F	1930	22	315	5.1	44.0	38.4	87.3	.503	22.13	19.28
	F	1932	14	301	5.4	44.0	40.7	92.5	.362	15.93	14.75
Shapers	M	1930	90	246	5.0	44.0	38.4	87.3	1.012	44.53	38.88
	M	1932	109	286	5.1	44.2	39.1	88.5	.684	30.23	26.70
	F	1930	7	28	5.2	44.6	37.4	83.9	.455	20.29	17.03
	F	1932	8	39	5.5	44.4	44.9	101.1	.314	13.94	14.10
Other employees	M	1930	162	2,380	5.3	44.5	41.1	92.4	.715	31.82	29.35
	M	1932	168	1,472	5.2	44.5	39.9	89.7	.513	22.83	20.50
	F	1930	169	2,631	4.9	44.4	37.3	84.0	.408	18.12	15.18
	F	1932	181	2,333	4.9	44.6	37.0	83.0	.300	13.38	11.12
All occupations	M	1930	212	16,571	5.0	44.3	39.4	88.9	.885	39.21	34.84
	M	1932	242	16,511	5.0	44.3	38.6	87.1	.641	28.40	24.75
	F	1930	211	16,833	4.9	44.2	36.2	81.9	.504	22.28	18.24
	F	1932	233	16,540	4.9	44.5	36.0	80.9	.361	16.06	13.01
All occupations, males and females		1930	212	33,404	5.0	44.3	37.8	85.3	.701	31.05	26.48
		1932	243	33,051	5.0	44.4	37.3	84.0	.506	22.47	18.87

Hours and Earnings, 1930 and 1932, by Sex, and City or District

TABLE 3 shows, for the males and females separately and for both sexes combined in each city or district in 1930 and 1932, average days worked, hours, and earnings, and the per cent of full time worked.

Average days worked in one week by males ranged, by cities or districts, from a low of 4.4 to a high of 5.7 in 1930 and from 3.7 to 5.5 in 1932; for all cities and districts combined they averaged 5 in 1930 and 1932. The days worked by females ranged from 4 to 5.6 in 1930 and from 3.8 to 5.6 in 1932, and for all cities and districts combined averaged 4.9 in 1930 and 1932. For both sexes combined the average number of days worked ranged from 4.2 to 5.6 in 1930 and from 3.8 to 5.6 in 1932.

The average hours actually worked in one week by males ranged from 25.5 to 50.6 in 1930 and from 24.4 to 43.9 in 1932, and for all cities and districts combined averaged 39.4 in 1930 and 38.6 in 1932. Those worked by females ranged from 21.3 to 46.8 in 1930 and from 25.1 to 46.1 in 1932, and for all cities and districts combined averaged 36.2 in 1930 and 36 in 1932. The average hours for males and females combined ranged from 22.8 to 48 in 1930 and from 24.8 to 43.3 in 1932.

The proportion of full time worked in one week by males ranged from 60.6 to 101.8 per cent in 1930 and from 55.5 to 98.7 per cent

in 1932, and for all cities and districts combined was 88.9 and 87.1 per cent, respectively, in the two years; in the case of females, the proportion ranged from 53.9 to 98.6 per cent in 1930 and from 57 to 97.7 per cent in 1932, and for all cities and districts combined was 81.9 per cent in 1930 and 80.9 per cent in 1932. For both sexes combined the per cent of full time ranged from 56.4 to 100.7 in 1930 and from 56.4 to 97.7 in 1932.

Average earnings per hour for males ranged from 43.2 cents to $1.029 in 1930 and from 29.3 to 75.8 cents in 1932, and for all cities and districts combined averaged 88.5 cents in 1930 and 64.1 cents in 1932. Averages for females ranged in 1930 from 27.5 to 73.6 cents and from 16.5 to 53.1 cents in 1932, and for all cities and districts combined averaged 50.4 cents in 1930 and 36.1 cents in 1932. Average earnings per hour for males and for females in each city or district were less in 1932 than in 1930. The loss to both sexes combined ranged from a low of 7.3 cents to a high of 29.8 cents per hour, while the loss for all cities and districts combined averaged 19.5 cents per hour.

Actual earnings for males in one week ranged from $21.83 to $41.88 in 1930 and from $12.03 to $29.17 in 1932, and for all cities and districts combined averaged $34.84 in 1930 and $24.75 in 1932. Those for females ranged from $12.54 to $24.79 in 1930 and from $6.20 to $16.60 in 1932, and for all cities and districts combined averaged $18.24 in 1930 and $13.01 in 1932.

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS IN THE MEN'S CLOTHING INDUSTRY, 1930 AND 1932, BY SEX AND CITY OR DISTRICT

Sex and city or district	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Males										
Baltimore	1930	6	727	4.9	44.3	38.4	86.7	$0.681	$30.17	$26.12
	1932	10	455	5.2	44.0	37.7	85.7	.461	20.28	17.38
Boston	1930	11	585	5.3	44.0	39.5	89.8	.868	38.19	34.29
	1932	12	817	5.4	44.0	39.4	89.5	.616	27.10	24.31
Buffalo	1930	7	170	5.5	44.0	40.8	92.7	.801	35.24	32.72
	1932	8	160	5.4	44.3	40.2	90.7	.507	22.46	20.36
Chicago	1930	6	3,153	5.0	44.0	37.1	84.3	1.029	45.28	38.16
	1932	6	2,572	4.9	44.0	32.8	74.5	.758	33.35	24.82
Cincinnati	1930	5	647	4.4	42.1	25.5	60.6	.910	38.31	23.19
	1932	6	539	4.7	44.1	33.7	76.4	.641	28.27	21.61
Cleveland	1930	5	376	4.6	44.0	35.0	79.5	.734	32.30	25.66
	1932	4	479	5.0	44.2	36.1	81.7	.516	22.81	18.63
Milwaukee	1930	9	203	5.3	45.1	40.6	90.0	.761	34.32	30.93
	1932	8	127	5.0	45.0	35.7	79.3	.515	23.18	18.37
Newark	1930	11	373	5.6	44.0	44.8	101.8	.934	41.10	41.88
	1932	18	414	5.4	44.2	41.4	93.7	.579	25.59	23.96
Northeastern New Jersey [1]	1930	15	606	5.3	46.4	45.5	98.1	.661	30.67	30.07
	1932	12	664	5.3	44.5	43.9	98.7	.540	24.03	23.72
New York, N. Y.	1930	102	6,365	4.9	44.3	41.6	93.9	.926	41.02	38.55
	1932	118	6,570	5.1	44.2	43.5	98.4	.670	29.61	29.17
Philadelphia	1930	13	1,447	5.5	44.2	41.7	94.3	.792	35.01	33.04
	1932	14	1,429	5.5	44.1	40.4	91.6	.602	26.55	24.34
Eastern Pennsylvania [2]	1930	9	264	5.7	51.8	50.6	97.7	.432	22.38	21.83
	1932	12	363	4.9	52.0	41.0	78.8	.293	15.24	12.03
Rochester	1930	5	1,278	4.9	44.0	33.3	75.7	.915	40.26	30.46
	1932	7	1,647	3.7	44.0	24.4	55.5	.713	31.37	17.38
St. Louis	1930	8	377	5.0	44.3	38.3	86.5	.676	29.95	25.88
	1932	7	275	5.5	44.3	42.7	96.4	.486	21.53	20.75
Total	1930	212	16,571	5.0	44.3	39.4	88.9	.885	39.21	34.84
	1932	242	16,511	5.0	44.3	38.6	87.1	.641	28.40	24.75

[1] Excluding Newark.

[2] Excluding Philadelphia.

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS IN THE MEN'S CLOTHING INDUSTRY, 1930 AND 1932, BY SEX AND CITY OR DISTRICT—Continued

Sex and city or district	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Females										
Baltimore	1930	5	1,751	5.3	44.3	39.7	89.6	$0.362	$16.04	$14.38
	1932	8	1,467	5.6	44.3	41.6	93.9	.248	10.99	10.32
Boston	1930	11	503	5.1	44.0	37.7	85.7	.486	21.38	18.33
	1932	12	721	5.3	44.1	38.4	87.1	.320	14.11	12.28
Buffalo	1930	7	406	5.5	44.0	40.0	90.9	.531	23.36	21.26
	1932	8	343	5.2	44.1	37.4	84.8	.314	13.85	11.75
Chicago	1930	6	2,750	4.7	44.0	33.7	76.6	.736	32.38	24.79
	1932	6	2,515	4.8	44.0	31.2	70.9	.531	23.36	16.60
Cincinnati	1930	5	1,230	4.0	39.5	21.3	53.9	.588	23.23	12.54
	1932	7	1,024	4.5	44.0	30.7	69.8	.397	17.47	12.19
Cleveland	1930	5	1,249	4.2	44.0	32.0	72.7	.523	23.01	16.71
	1932	4	1,540	5.0	44.0	36.1	82.0	.377	16.59	13.64
Milwaukee	1930	9	447	5.0	45.2	37.6	83.2	.532	24.05	19.99
	1932	8	294	4.7	46.0	34.1	74.1	.357	16.42	12.20
Newark	1930	11	215	5.6	44.0	43.4	98.6	.521	22.92	22.61
	1932	18	263	5.3	44.2	41.1	93.0	.343	15.16	14.10
Northeastern New Jersey [1]	1930	15	785	5.3	47.0	44.5	94.7	.345	16.22	15.36
	1932	12	825	5.2	44.6	41.4	92.8	.302	13.47	12.49
New York, N. Y	1930	102	2,631	4.9	44.6	41.0	91.9	.485	21.63	19.86
	1932	111	2,548	5.1	44.6	42.6	95.5	.356	15.88	15.18
Philadelphia	1930	13	1,224	5.4	44.1	40.1	90.9	.434	19.14	17.44
	1932	14	1,134	5.4	44.0	39.3	89.3	.346	15.22	13.60
Eastern Pennsylvania [2]	1930	9	579	5.4	50.7	46.8	92.3	.275	13.94	12.88
	1932	12	730	4.7	51.6	37.6	72.9	.165	8.51	6.20
Rochester	1930	5	2,105	4.8	44.0	31.3	71.1	.580	25.52	18.13
	1932	6	2,340	3.8	44.0	25.1	57.0	.431	18.96	10.81
St. Louis	1930	8	958	4.8	44.3	36.2	81.7	.419	18.56	15.17
	1932	7	796	5.6	44.1	43.1	97.7	.303	13.36	13.05
Total	1930	211	16,833	4.9	44.2	36.2	81.9	.504	22.28	18.24
	1932	233	16,540	4.9	44.5	36.0	80.9	.361	16.06	13.01
Males and females										
Baltimore	1930	6	2,478	5.2	44.3	39.3	88.7	.454	20.11	17.82
	1932	10	1,922	5.5	44.2	40.7	92.1	.295	13.04	11.99
Boston	1930	11	1,088	5.2	44.0	38.7	88.0	.695	30.58	26.91
	1932	12	1,538	5.4	44.1	38.9	88.2	.480	21.17	18.67
Buffalo	1930	7	576	5.5	44.0	40.3	91.6	.612	26.93	24.64
	1932	8	503	5.2	44.1	38.3	86.8	.378	16.67	14.49
Chicago	1930	6	5,903	4.9	44.0	35.5	80.7	.900	39.60	31.93
	1932	6	5,087	4.9	44.0	32.0	72.7	.649	28.56	20.76
Cincinnati	1930	5	1,877	4.2	40.4	22.8	56.4	.712	28.76	16.21
	1932	7	1,563	4.6	44.0	31.8	72.3	.486	21.38	15.44
Cleveland	1930	5	1,625	4.3	44.0	32.7	74.3	.575	25.30	18.79
	1932	4	2,019	5.0	44.1	36.1	81.9	.410	18.08	14.82
Milwaukee	1930	9	650	5.1	45.2	38.6	85.4	.607	27.44	23.41
	1932	8	421	4.8	45.7	34.6	75.7	.406	18.55	14.06
Newark	1930	11	588	5.6	44.0	44.3	100.7	.786	34.58	34.83
	1932	18	677	5.4	44.2	41.3	93.4	.488	21.57	20.13
Northeastern New Jersey [1]	1930	15	1,391	5.3	46.8	44.9	95.9	.484	22.65	21.77
	1932	12	1,489	5.2	44.6	42.5	95.3	.411	18.33	17.50
New York, N. Y	1930	102	8,996	4.9	44.4	41.4	93.2	.799	35.48	33.08
	1932	118	9,118	5.1	44.3	43.3	97.7	.583	25.83	25.26
Philadelphia	1930	13	2,671	5.4	44.1	41.0	93.0	.632	27.87	25.89
	1932	14	2,563	5.5	44.0	39.9	90.7	.490	21.56	19.58
Eastern Pennsylvania [2]	1930	9	843	5.4	51.0	48.0	94.1	.327	16.68	15.68
	1932	12	1,093	4.8	51.7	38.8	75.0	.210	10.86	8.14
Rochester	1930	5	3,383	4.8	44.0	32.0	72.7	.711	31.28	22.79
	1932	7	3,987	3.8	44.0	24.8	56.4	.546	24.02	13.53
St. Louis	1930	8	1,335	4.9	44.3	36.8	83.1	.495	21.93	18.19
	1932	7	1,071	5.6	44.1	43.0	97.5	.349	15.39	15.03
Total	1930	212	33,404	5.0	44.3	37.8	85.3	.701	31.05	26.48
	1932	243	33,051	5.0	44.4	37.3	84.0	.506	22.47	18.87

[1] Excluding Newark.

[2] Excluding Philadelphia.

Hours and Earnings, 1932, by Occupation and City or District

TABLE 4 presents average days, hours, and earnings, and the per cent of full time actually worked in one week for the wage earners in nine representative occupations in each city or district where found in 1932.

The average number of days on which male coat basters, the first occupation in the table, worked in one week ranged in the different cities or districts from a low of 4.1 to a high of 5.6, and for all cities and districts combined averaged 5. Average full-time hours per week in this occupation ranged from 44 to 53, and for all cities and districts averaged 44.2. Average hours actually worked in one week ranged from 20.1 to 45, and for all cities and districts averaged 39.1. The per cent of full time worked in one week ranged from 45.7 to 102.3, and for all cities and districts averaged 88.5 per cent. Average earnings per hour ranged from 24.7 to 68.1 cents, and for all cities and districts averaged 56.1 cents. Average full-time earnings per week ranged from $13.09 to $29.96, and for all cities and districts averaged $24.80. Average actual earnings in one week ranged from $10.83 to $24.75, and for all cities and districts combined averaged $21.95.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS IN NINE SPECIFIED OCCUPATIONS IN THE MEN'S CLOTHING INDUSTRY, 1932, BY SEX AND CITY OR DISTRICT

Occupation, sex, and city or district	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Basters, coat, male:									
Baltimore	4	16	5.4	44.0	40.5	92.0	$0.442	$19.45	$17.87
Boston	9	82	5.2	44.0	38.5	87.5	.537	23.63	20.66
Buffalo	3	4	5.5	44.0	45.0	102.3	.531	23.36	23.87
Chicago	4	225	5.1	44.0	34.8	79.1	.677	29.79	23.53
Cincinnati	4	12	4.8	44.0	33.6	76.4	.607	26.71	20.39
Cleveland	3	67	5.0	44.0	35.8	81.4	.427	18.79	15.28
Milwaukee	3	9	4.1	45.0	26.9	59.8	.432	19.44	11.62
Newark	8	43	5.6	44.0	42.4	96.4	.495	21.78	20.98
Northeastern New Jersey [1]	5	52	4.9	44.2	41.3	93.4	.600	26.52	24.75
New York, N. Y	60	834	5.2	44.4	44.3	99.8	.544	24.15	24.12
Philadelphia	9	207	5.5	44.0	39.1	88.9	.560	24.64	21.87
Eastern Pennsylvania [2]	3	8	5.3	53.0	43.9	82.8	.247	13.09	10.83
Rochester	3	171	3.6	44.0	20.1	45.7	.681	29.96	13.68
St. Louis	2	4	4.5	44.8	39.0	87.1	.369	16.53	14.38
Total	120	1,734	5.0	44.2	39.1	88.5	.561	24.80	21.95
Basters, coat, female:									
Baltimore	5	136	5.8	44.0	43.4	98.6	.230	10.12	9.98
Boston	8	37	5.3	44.0	38.4	87.3	.344	15.14	13.20
Buffalo	4	33	5.1	44.0	37.7	85.7	.345	15.18	12.98
Chicago	4	154	5.2	44.0	33.1	75.2	.520	22.88	17.24
Cincinnati	4	68	5.0	44.0	37.5	85.2	.346	15.22	12.99
Cleveland	3	104	5.0	44.0	38.2	86.8	.381	16.76	14.57
Milwaukee	5	26	4.8	45.8	33.9	74.0	.360	16.49	12.17
Newark	10	53	5.7	44.0	44.2	100.5	.351	15.44	15.52
Northeastern New Jersey [1]	6	68	5.2	44.4	41.0	92.3	.334	14.83	13.71
New York, N. Y	43	172	5.1	44.5	43.2	97.1	.405	18.02	17.52
Philadelphia	9	148	5.4	44.0	37.4	85.0	.350	15.40	13.10
Eastern Pennsylvania [2]	4	71	5.4	52.6	47.0	89.4	.147	7.73	6.91
Rochester	4	278	4.1	44.0	28.6	65.0	.413	18.17	11.79
St. Louis	5	53	5.6	44.1	44.5	100.9	.323	14.24	14.35
Total	114	1,401	5.1	44.5	37.7	84.7	.357	15.89	13.48

[1] Excluding Newark.

[2] Excluding Philadelphia.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS IN NINE SPECIFIED OCCUPATIONS IN THE MEN'S CLOTHING INDUSTRY, 1932, BY SEX AND CITY OR DISTRICT—Continued

Occupation, sex, and city or district	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Cutters, cloth, male:									
Baltimore	5	59	3.9	44.0	26.3	59.8	$0.792	$34.85	$20.81
Boston	9	71	5.3	44.0	40.9	93.0	.932	41.01	38.12
Buffalo	5	27	5.3	44.0	38.8	88.2	.713	31.37	27.69
Chicago	4	273	4.4	44.0	33.3	75.7	.918	40.39	30.55
Cincinnati	4	109	4.8	44.0	35.3	80.2	.901	39.64	31.79
Cleveland	4	66	4.7	44.5	34.7	78.0	.756	33.64	26.22
Milwaukee	7	18	5.4	45.1	41.6	92.2	.625	28.19	26.01
Newark	2	4	5.3	44.0	44.0	100.0	1.108	48.75	48.75
Northeastern New Jersey [1]	3	20	5.5	44.8	48.8	108.9	.863	38.66	42.06
New York, N. Y	32	342	5.5	44.1	42.2	95.7	1.091	48.11	46.02
Philadelphia	5	108	5.7	44.0	43.1	98.0	.841	37.00	36.25
Eastern Pennsylvania [2]	5	21	5.6	53.8	50.7	94.2	.465	25.02	23.59
Rochester	5	252	3.4	44.0	27.0	61.4	.889	39.12	24.05
St. Louis	6	26	5.8	44.0	44.4	100.9	.666	29.30	29.53
Total	96	1,396	4.7	44.2	36.3	82.1	.920	40.66	33.45
Hand sewers, coat, female:									
Baltimore	5	259	5.7	44.0	43.6	99.1	.229	10.08	9.97
Boston	9	298	5.3	44.2	38.5	87.1	.312	13.79	12.01
Buffalo	4	80	5.2	44.0	37.7	85.7	.278	12.23	10.47
Chicago	4	646	5.2	44.0	35.1	79.8	.483	21.25	16.93
Cincinnati	4	162	4.1	44.0	30.3	68.9	.338	14.87	10.26
Cleveland	4	198	5.0	44.1	37.7	85.5	.324	14.29	12.22
Milwaukee	5	61	4.4	46.1	29.6	64.2	.336	15.49	9.93
Newark	10	69	5.5	44.0	41.8	95.0	.289	12.72	12.08
Northeastern New Jersey [1]	6	98	5.1	44.7	39.5	88.4	.305	13.63	12.05
New York, N. Y	65	1,140	5.2	44.8	42.9	95.8	.335	15.01	14.40
Philadelphia	9	251	5.3	44.0	38.0	86.4	.334	14.07	12.69
Eastern Pennsylvania [2]	4	41	4.9	53.1	40.1	75.5	.145	7.70	5.83
Rochester	4	626	3.7	44.0	25.3	57.5	.373	16.41	9.43
St. Louis	5	96	5.2	44.2	41.3	93.4	.291	12.86	12.02
Total	138	4,025	4.9	44.4	37.1	83.6	.345	15.32	12.80
Operators, coat, male:									
Baltimore	4	42	5.4	44.0	40.4	91.8	.494	21.74	19.99
Boston	9	190	5.5	44.0	40.0	90.9	.600	26.40	24.01
Buffalo	4	14	5.4	44.0	41.2	93.6	.517	22.75	21.28
Chicago	4	324	5.2	44.0	33.5	76.1	.757	33.31	25.33
Cincinnati	5	53	4.2	44.0	28.0	63.6	.651	28.64	18.24
Cleveland	3	7	4.9	44.2	35.8	81.0	.391	17.28	13.99
Milwaukee	4	11	4.9	44.3	32.9	74.3	.578	25.61	18.99
Newark	10	101	5.8	44.0	44.6	101.4	.620	27.28	27.70
Northeastern New Jersey [1]	6	138	5.3	44.1	43.6	98.9	.676	29.81	29.48
New York, N. Y	66	1,569	5.1	44.1	43.5	98.6	.707	31.18	30.76
Philadelphia	9	248	5.5	44.0	40.0	90.9	.666	29.30	26.61
Eastern Pennsylvania [2]	4	36	5.4	52.8	46.2	87.5	.439	23.18	20.31
Rochester	4	170	3.8	44.0	23.7	53.9	.746	32.82	17.66
St. Louis	4	23	4.6	44.7	38.3	85.7	.584	26.10	22.35
Total	136	2,926	5.1	44.2	40.4	91.4	.687	30.37	27.73
Operators, coat, female:									
Baltimore	5	332	5.8	44.0	44.5	101.1	.262	11.53	11.68
Boston	6	107	5.5	44.0	40.8	92.7	.312	13.73	12.73
Buffalo	4	75	5.4	44.0	38.6	87.7	.380	16.72	14.65
Chicago	4	335	4.9	44.0	29.7	67.5	.680	29.92	20.18
Cincinnati	6	288	4.2	44.0	29.3	66.6	.457	20.11	13.39
Cleveland	4	460	4.9	44.1	36.3	82.3	.407	17.95	14.76
Milwaukee	5	99	4.8	46.3	36.0	77.8	.414	19.17	14.92
Newark	10	67	5.8	44.0	44.8	101.8	.440	19.36	19.70
Northeastern New Jersey [1]	6	171	5.3	44.9	43.4	96.7	.357	16.03	15.49
New York, N. Y	48	254	5.0	44.4	42.3	95.3	.434	19.27	18.36
Philadelphia	9	150	5.5	44.0	40.6	92.3	.410	18.04	16.66
Eastern Pennsylvania [2]	4	126	5.3	53.3	42.1	79.0	.175	9.33	7.36
Rochester	4	419	4.2	44.0	31.1	70.7	.502	22.09	15.61
St. Louis	5	203	5.6	44.1	43.6	98.9	.341	15.04	14.87
Total	120	3,086	5.0	44.5	37.3	83.8	.407	18.11	15.18

[1] Excluding Newark.

[2] Excluding Philadelphia.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS IN NINE SPECIFIED OCCUPATIONS IN THE MEN'S CLOTHING INDUSTRY, 1932, BY SEX AND CITY OR DISTRICT—Continued

Occupation, sex, and city or district	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Operators, pants, male:									
Baltimore	5	49	5.0	44.0	34.9	79.3	$0.347	$15.27	$12.14
Boston	5	68	5.0	44.0	35.9	81.6	.525	23.10	18.86
Buffalo	1	4	6.0	44.0	38.1	86.6	.511	22.48	19.49
Chicago	4	212	4.5	44.0	28.9	65.7	.826	36.34	23.90
Cincinnati	2	6	5.0	44.0	31.3	71.1	.514	22.62	16.07
Milwaukee	1	1	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Newark	3	32	4.4	44.0	33.4	75.9	.636	27.98	21.23
Northeastern New Jersey [1]	5	51	5.3	44.2	40.7	92.1	.372	16.44	15.14
New York, N. Y	35	766	5.1	44.1	43.5	98.6	.603	26.59	26.19
Philadelphia	6	109	5.1	44.6	38.9	87.2	.512	22.84	19.94
Eastern Pennsylvania [2]	5	27	3.9	50.5	30.0	59.4	.215	10.86	6.46
Rochester	3	18	4.6	44.0	25.0	56.8	.626	27.54	15.67
St. Louis	2	2	5.0	44.0	34.5	78.4	.355	15.62	12.26
Total	77	1,345	5.0	44.2	39.2	88.7	.594	26.25	23.28
Operators, pants, female:									
Baltimore	6	131	5.6	44.0	41.3	93.9	.232	10.21	9.60
Boston	5	99	5.3	44.0	37.7	85.7	.353	15.53	13.32
Buffalo	4	76	5.2	44.2	37.8	85.5	.294	12.99	11.13
Chicago	4	489	4.2	44.0	26.5	60.2	.651	28.64	17.28
Cincinnati	5	211	4.7	44.0	30.1	68.4	.464	20.42	13.96
Cleveland	4	214	5.4	44.1	35.6	80.7	.377	16.63	13.42
Milwaukee	3	70	4.7	45.7	35.0	76.6	.335	15.31	11.71
Newark	3	10	4.1	44.0	31.8	72.3	.304	13.38	9.67
Northeastern New Jersey [1]	5	180	5.1	44.6	39.3	88.1	.311	13.87	12.23
New York, N. Y	29	148	5.1	44.6	42.3	94.8	.390	17.39	16.48
Philadelphia	6	112	5.2	44.0	39.3	89.3	.430	18.92	16.90
Eastern Pennsylvania [2]	5	283	3.6	50.4	26.6	52.8	.222	11.19	5.91
Rochester	4	245	3.7	44.0	18.3	41.6	.555	24.42	10.41
St. Louis	4	216	5.7	44.0	43.6	99.1	.288	12.67	12.55
Total	87	2,484	4.7	44.9	32.6	72.6	.396	17.78	12.88
Operators, vest, female:									
Baltimore	5	115	5.0	44.0	34.5	78.4	.306	13.43	10.56
Boston	2	19	5.7	44.0	43.0	97.7	.418	18.39	17.97
Buffalo	1	17	4.6	44.0	32.3	73.4	.356	15.66	11.50
Chicago	5	181	4.7	44.0	29.2	66.4	.599	26.36	17.51
Cincinnati	4	88	4.8	44.0	28.4	64.5	.406	17.86	11.53
Cleveland	3	146	4.9	44.0	31.9	72.5	.386	16.98	12.28
Newark	3	14	3.4	44.0	26.1	59.3	.390	17.16	10.18
Northeastern New Jersey [1]	3	64	5.6	45.1	42.3	93.8	.317	14.30	13.40
New York, N. Y	16	63	5.0	44.5	40.6	91.2	.434	19.31	17.61
Philadelphia	6	72	5.6	44.0	39.3	89.3	.427	18.79	16.79
Eastern Pennsylvania [2]	2	70	5.7	51.7	49.0	94.8	.140	7.24	6.85
Rochester	4	135	3.8	44.0	21.5	48.9	.514	22.62	11.05
St. Louis	4	66	5.7	44.1	42.8	97.1	.353	15.57	15.11
Total	58	1,050	4.9	44.6	33.7	75.6	.396	17.66	13.35
Pressers, coat, male:									
Baltimore	5	126	5.6	44.0	41.1	93.4	.388	17.07	15.91
Boston	9	192	5.5	44.1	40.5	91.8	.643	28.36	26.08
Buffalo	4	46	5.2	44.0	38.7	88.0	.458	20.15	17.73
Chicago	4	560	5.2	44.0	32.1	73.0	.745	32.78	23.87
Cincinnati	4	124	4.3	44.0	30.7	69.8	.560	24.64	17.20
Cleveland	4	131	5.0	44.1	36.8	83.4	.524	23.11	19.30
Milwaukee	5	44	4.7	45.6	32.6	71.5	.489	22.30	15.95
Newark	10	118	5.7	44.0	43.6	99.1	.519	22.84	22.64
Northeastern New Jersey [1]	6	171	5.3	44.6	45.5	102.0	.478	21.32	21.74
New York, N. Y	67	1,320	5.1	44.2	44.3	100.2	.635	28.07	28.14
Philadelphia	9	315	5.5	44.0	39.3	89.3	.622	27.37	24.41
Eastern Pennsylvania [2]	4	88	4.9	52.9	38.8	73.3	.205	10.84	7.96
Rochester	4	551	3.4	44.0	23.0	52.3	.690	30.36	15.83
St. Louis	5	82	5.5	44.2	43.7	98.9	.465	20.55	20.33
Total	140	3,868	4.9	44.3	37.8	85.3	.608	26.93	22.97

[1] Excluding Newark. [2] Excluding Philadelphia. [3] Data included in total.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS IN NINE SPECIFIED OCCUPATIONS IN THE MEN'S CLOTHING INDUSTRY, 1932, BY SEX AND CITY OR DISTRICT—Continued

Occupation, sex, and city or district	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Pressers, pants, male:									
Baltimore	5	23	5.3	44.0	37.8	85.9	$0.415	$18.26	$15.66
Boston	5	41	5.3	44.0	36.9	83.9	.525	23.10	19.37
Buffalo	4	14	5.4	44.2	39.6	89.6	.421	18.61	16.70
Chicago	4	146	4.6	44.0	28.3	64.3	.811	35.68	22.92
Cincinnati	5	46	4.7	44.0	30.2	68.6	.611	26.88	18.43
Cleveland	4	23	4.9	44.1	28.9	65.5	.441	19.45	12.76
Milwaukee	3	14	4.9	44.9	34.4	76.6	.477	21.42	16.40
Newark	3	11	4.3	44.0	33.9	77.0	.563	24.77	19.09
Northeastern New Jersey [1]	5	46	5.0	44.3	39.5	89.2	.424	18.78	16.76
New York, N. Y	35	263	5.1	44.3	43.5	98.2	.547	24.23	23.80
Philadelphia	6	54	4.9	44.4	36.0	81.1	.515	22.87	18.54
Eastern Pennsylvania [2]	5	56	3.8	30.4	30.1	59.7	.261	13.15	7.85
Rochester	4	86	3.5	44.0	17.9	40.7	.739	32.52	13.23
St. Louis	4	29	5.8	44.0	44.5	101.1	.405	17.82	18.02
Total	92	852	4.8	44.6	34.9	78.3	.554	24.71	19.30
Pressers, vest, male:									
Baltimore	2	8	4.6	44.0	32.4	73.6	.331	14.56	10.73
Boston	4	12	5.6	44.0	39.0	88.6	.659	29.00	25.66
Buffalo	4	8	4.6	44.0	33.6	76.4	.452	19.89	15.21
Chicago	5	88	4.7	44.0	26.3	59.8	.775	34.10	20.41
Cincinnati	4	19	4.9	44.0	32.6	74.1	.513	22.57	16.76
Cleveland	2	11	5.0	44.0	29.3	66.6	.422	18.57	12.36
Newark	4	8	3.4	45.4	27.3	60.1	.575	26.11	15.66
Northeastern New Jersey [1]	3	22	5.2	44.7	39.0	87.2	.312	13.95	12.16
New York, N. Y	26	119	4.8	44.2	40.4	91.4	.679	30.01	27.41
Philadelphia	6	41	5.6	44.0	39.9	90.7	.543	23.89	21.65
Eastern Pennsylvania [2]	2	25	6.0	51.8	51.8	100.0	.188	9.74	9.74
Rochester	4	51	3.5	44.0	20.4	46.4	.714	31.42	14.58
St. Louis	4	11	5.5	44.1	41.7	94.6	.480	21.17	20.03
Total	70	423	4.8	44.6	34.4	77.1	.585	26.09	20.13

[1] Excluding Newark.

[2] Excluding Philadelphia.

Wage Rates of Cereal Beverage Workers, 1932

IN 1918 the labor organization known as the United Brewery Workmen adjusted itself to changed conditions by taking the title of International Union of United Brewery, Flour, Cereal, and Soft Drink Workers. In this expansion the union took in members from the collapsed union of flour and cereal mill employees, and also persons engaged in the manufacture of various soft drinks.

As many of the breweries kept in operation by changing their product from beer to near beer, there was not much change in the character of the work of the original brewery workers.

Because of the current interest in beer and beer producers, the bureau has recently collected information concerning the wage rates and regular hours of labor of organized cereal beverage workers, that is, a class of workers the same as or closely akin to the brewery workers of 1918. The bureau also has compiled certain figures drawn from census reports relative to the manufacture of malt liquors prior to the adoption of the prohibition amendment.

Questionnaires were sent to local unions, and the replies received are here tabulated. No attempt was made to get data from employers, either union or nonunion.

In compiling the data relative to the present wages and hours of labor in this mixed industrial group of union workers, an effort was made to eliminate figures that applied only to flour and cereal workers and to retain only such figures as applied to the soft-drink workers. In the table occupational terms appear as they are found in the several union agreements. A considerable variation in classification appears in the table as between the different cities. For some cities only one rate is given as applying to the entire membership of the union in that city. Several occupational classifications appear for other cities.

The term "malt liquors" dropped out of the reports of the United States Census of Manufactures after 1919. In the report for 1919 a table is given summarizing the return for this industry as collected for each census year back to 1849. In that early year there were 431 breweries employing 2,347 wage earners, their wages for the year being $654,000 or an average of $278.65 per wage earner. The value of the product in 1849 was $5,729,000 and the cost of material entering into such product was $3,055,000.

The industry was at its peak, so far as the census reveals, in 1914, when 62,070 wage earners were employed and received $53,244,000 in wages, making an average of $857.84 per capita. In that year the industry turned out a product valued at $442,149,000 and used material costing $129,724,000.

The figures for 1919 appearing in the table show a great curtailment in the industry, as it was being adapted to new conditions and different products. The census shows for that year 34,259 wage earners receiving $45,170,000 in wages, which makes an average of $1,318.49 wages per year per wage earner.

TABLE 1.—RATES OF WAGES AND HOURS OF BREWERY AND SOFT-DRINK WORKERS IN THE UNITED STATES

City and State	Rate of wages per week	Hours per week
Allentown, Pa	$24.00–$30.00	36
Alton, Ill.:		
Firemen	27.00	48
Brewers	27.00	48
Bottlers	25.50	48
Drivers	27.00	48
Baltimore, Md	32.00–35.00	48
Belleville, Ill.:		
Firemen	30.60	48
Engineers	35.10	48
Brewers	32.00	44
Bottlers	27.00	44
Drivers	28.00	48
Brooklyn, N. Y	36.00	48
Buffalo, N. Y.:		
Brewers	33.00	44
Firemen—maltsters	33.00	48
Engineers	38.00	48
Cincinnati, Ohio:		
Group A	30.00	48
Group B	27.50	48
Cleveland, Ohio	30.00	48
Davenport, Iowa	29.00–33.75	48
Dayton, Ohio:		
Brewing department	$23.40–$28.80	48
Mechanical department—		
Engineers	[1] 164.70	48
Assistant engineers	30.60	48
Firemen	27.00	48
Bottling department	25.20	------
Drivers	23.40–27.90	48
Denver, Colo	24.00–26.00	[2] 8–9
Fort Wayne, Ind	24.75–26.10	48
Jamaica Plains (Boston), Mass	30.00–35.00	44
Jefferson, Wis	25.00	54
Kansas City, Mo	30.00–35.00	48
La Crosse, Wis	24.50–29.00	48
Los Angeles, Calif	36.00	32–40
Louisville, Ky.:		
Engineers	27.50	48
Firemen and repairmen	24.00	48
Oilers	23.00	48
Helpers and ice pullers	22.50	48

[1] Per month.

[2] Per day.

TABLE 1.—RATES OF WAGES AND HOURS OF BREWERY AND SOFT-DRINK WORKERS IN THE UNITED STATES—Continued

City and State	Rate of wages per week	Hours per week
Manitowoc, Wis.:		
First establishment—		
Brewery workers	$26.00	44
Bottle delivery men, city	28.00	44
Bottle delivery men, county	28.00	60
Truck and team drivers	26.00	44
Bottle-house men	21.00–26.00	44
Watchmen	26.00	44
Engineers	31.00	44
Firemen	26.00	44
Second establishment—		
Maltsters and kiln firemen	26.40	44
Roasting department	27.36	44
Truck and team drivers	26.40	44
Engineers	31.20	44
Firemen	27.36	44
Watchmen	26.40	44
Nashville, Tenn	15.00–25.00	[3] 9
New Athens, Ill	21.00	48
New York, N. Y.:		
Group A	39.00	[3] 8
Group B	40.00	[3] 8
Group C	39.00–40.00	48
Oshkosh, Wis.:		
Group A	[5] .50	32–48
Group B	[4] 25.00	54
Peekskill, N. Y	23.00–36.00	[3] 8
Pekin, Ill	31.00	48
Peoria, Ill	[5] .52½–.87½	48
Philadelphia, Pa	$36.00	44
Piqua, Ohio	[5] .55–.65	56
Pittsburgh, Pa	22.99–43.15	48
Portland, Oreg	[3] 5.75	48
Pottsville, Pa	24.00–32.00	48
Raspeburg, Md	24.00–30.00	[3] 8
Red Wing, Minn	30.00	54
Sacramento, Calif	36.00	44
St. Louis, Mo.:		
Group A	32.30	44
Group B	31.00–34.20	48
Group C	45.00	48
San Antonio, Tex.:		
Group A—		
Bottlers	[3] 4.41	40
Brewers	[3] 5.00	40
Group B	[6] 12.50	(7)
San Francisco, Calif	40.00	[3] 8
Spokane, Wash.:		
Brewers	[4] 33.00	48
Maltsters	[4] 33.00	48
Bottlers	[4] 30.00	48
Drivers	30.00	48
Sumner, Wash	36.00	48
Syracuse, N. Y	[6] 30.00	(7)
Tacoma, Wash	6.00	8
Toledo, Ohio	32.00	48
Utica, N. Y	[4] 28.90	(7)
Venice, Calif	42.00	44
Washington, D. C	32.00–35.00	48
Watertown, Wis	[5] .50	54
West Bend, Wis	24.00	36
Wilkes-Barre, Pa	35.00–45.00	48
Winona, Minn	26.10	54

[3] Per day. [4] Minimum. [5] Per hour. [6] Plus commission. [7] Not reported.

TABLE 2.—SUMMARY OF CENSUS REPORTS ON THE MANUFACTURE OF MALT LIQUORS

Year	Number of establishments	Wage earners (average number)	Capital	Wages during year	Cost of materials	Value of products	Value added by manufacture
1849	[1] 431	2,347	$4,072,000	$654,000	$3,055,000	$5,729,000	$2,674,000
1859	1,269	6,433	15,782,000	2,306,000	9,997,000	21,311,000	11,314,000
1869	1,972	12,443	48,779,000	6,759,000	28,178,000	55,707,000	27,529,000
1879	2,191	26,220	91,208,000	12,198,000	56,837,000	101,058,000	44,221,000
1889	1,248	30,257	232,471,000	20,713,000	64,003,000	182,732,000	118,729,000
1899	1,507	39,459	413,767,000	25,776,000	51,598,000	236,915,000	185,317,000
1904	1,530	48,137	515,630,000	34,541,000	74,907,000	298,346,000	223,439,000
1909	1,414	54,579	671,158,000	41,206,000	96,596,000	374,730,000	278,134,000
1914	1,250	62,070	792,914,000	53,244,000	129,724,000	442,149,000	312,425,000
1919	729	34,259	583,430,000	45,170,000	94,793,000	379,905,000	285,112,000

Wage-Rate Changes in American Industries

Manufacturing Industries

IN THE following table is presented information concerning wage-rate adjustments occurring between November 15 and December 15 as shown by reports received from manufacturing establishments supplying employment data to this bureau. Of the 18,044 manufacturing establishments included in the December survey, 17,852 establishments, or 98.9 per cent of the total, reported no change in wage rates over the month interval. The 2,616,124 employees not affected by changes in wage rates constituted 99.2 per cent of the total number of employees covered by the December trend-of-employment survey of manufacturing industries.

Decreases in wage rates were reported by 185 establishments in 50 of the 89 industries surveyed. These establishments represented 1 per cent of the total number of establishments covered. The wage-rate decreases reported averaged 11.4 per cent and affected 19,576 employees, or seven-tenths of 1 per cent of all employees in the establishments reporting.

Seven establishments in six industries reported wage-rate increases in December, averaging 8.8 per cent, and affecting 580 employees.

TABLE 1.—WAGE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING DECEMBER 15, 1932

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
All manufacturing industries	18,044	2,636,280	17,852	7	185	2,616,124	580	19,576
Per cent of total	100.0	100.0	98.9	(1)	1.0	99.2	(1)	.7
Food and kindred products:								
Slaughtering and meat packing	226	83,999	222		4	83,825		174
Confectionery	334	38,300	333		1	38,277		23
Ice cream	393	10,408	388		5	10,297		111
Flour	430	15,960	427		3	15,782		178
Baking	962	61,703	951		11	61,397		306
Sugar refining, cane	15	7,939	13		2	6,176		1,763
Beet sugar	60	17,693	60			17,693		
Beverages	322	8,888	318		4	8,862		26
Butter	289	5,411	289			5,411		
Textiles and their products:								
Cotton goods	677	233,465	667	1	9	231,361	102	2,002
Hosiery and knit goods	438	100,488	435		3	100,328		160
Silk goods	240	44,681	238		2	44,571		110
Woolen and worsted goods	252	56,723	250	2		56,488	235	
Carpets and rugs	34	13,757	34			13,757		
Dyeing and finishing textiles	154	34,393	153		1	34,364		29
Clothing, men's	379	57,975	378		1	57,450		525
Shirts and collars	117	16,293	116		1	16,202		91
Clothing, women's	380	23,956	379	1		23,905	51	
Millinery	131	8,011	131			8,011		
Corsets and allied garments	30	5,272	30			5,272		
Cotton small wares	117	9,462	117			9,462		
Hats, fur-felt	36	5,270	36			5,270		
Men's furnishings	71	7,501	71			7,501		
Iron and steel and their products, not including machinery:								
Iron and steel	209	170,482	208	1		170,370	112	
Cast-iron pipe	38	5,411	38			5,411		
Structural and ornamental ironwork	197	13,492	197			13,492		
Hardware	105	20,984	104		1	20,353		631
Steam fittings and steam and hot-water heating apparatus	98	13,241	96		2	13,054		187
Stoves	152	14,497	149		3	14,445		52
Bolts, nuts, washers, and rivets	69	8,310	69			8,310		
Cutlery (not including silver and plated cutlery) and edge tools	129	8,681	128		1	8,659		22
Forgings, iron and steel	60	4,874	60			4,874		
Plumbers' supplies	69	5,274	67		2	5,113		161
Tin cans and other tinware	60	8,165	58		2	8,062		103
Tools (not including edge tools, machine tools, files, or saws)	128	6,818	127		1	6,513		305
Wirework	69	4,964	68		1	4,828		136
Lumber and allied products:								
Lumber—								
Sawmills	645	58,826	638		7	57,173		1,653
Millwork	485	17,714	472		13	17,392		322
Furniture	476	42,649	469	1	6	42,242	63	344
Turpentine and rosin	21	1,063	20		1	1,061		2
Leather and its manufactures:								
Leather	164	25,212	161		3	25,026		186
Boots and shoes	334	96,850	332		2	96,384		466

[1] Less than one-tenth of 1 per cent.

TABLE 1.—WAGE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING DECEMBER 15, 1932

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
Paper and printing:								
Paper and pulp	410	78,517	403		7	76,905		1,612
Paper boxes	314	20,716	314			20,716		
Printing—								
Book and job	752	47,683	735		17	46,591		1,092
Newspapers and periodicals	446	67,612	436	1	9	66,831	17	764
Chemicals and allied products:								
Chemicals	121	20,712	121			20,712		
Fertilizers	203	6,053	202		1	6,042		11
Petroleum refining	135	52,963	131		4	52,154		809
Cottonseed oil, cake, and meal	46	2,465	46			2,465		
Druggists preparations	41	7,486	41			7,486		
Explosives	26	3,297	26			3,297		
Paints and varnishes	354	14,454	347		7	13,790		664
Rayon	23	28,731	23			28,731		
Soap	87	12,562	85		2	12,509		53
Stone, clay, and glass products:								
Cement	119	11,222	119			11,222		
Brick, tile, and terra cotta	678	16,009	676		2	15,750		259
Pottery	121	14,628	120		1	14,558		70
Glass	189	33,938	187		2	33,683		255
Marble, granite, slate, and other stone products	214	5,003	212		2	4,901		102
Nonferrous metals and their products:								
Stamped and enameled ware	88	12,646	88			12,646		
Brass, bronze, and copper products	204	27,450	201		3	27,351		99
Aluminum manufactures	26	4,877	26			4,877		
Clocks, time recording devices, and clock movements	24	5,264	23		1	5,237		27
Gas and electric fixtures, lamps, lanterns, and reflectors	53	4,790	52		1	4,746		44
Plated ware	54	7,752	54			7,752		
Smelting and refining—copper, lead, and zinc	28	8,152	28			8,152		
Jewelry	148	8,045	148			8,045		
Tobacco manufactures:								
Chewing and smoking tobacco and snuff	34	10,027	34			10,027		
Cigars and cigarettes	208	44,440	206		2	43,857		583
Transportation equipment								
Automobiles	223	173,331	221		2	172,838		493
Aircraft	30	5,768	30			5,768		
Cars, electric and steam railroad	39	5,473	39			5,473		
Locomotives	11	2,107	11			2,107		
Shipbuilding	90	25,226	90			25,226		
Rubber products:								
Rubber tires and inner tubes	45	42,627	45			42,627		
Rubber boots and shoes	9	11,245	9			11,245		
Rubber goods, other than boots, shoes, tires, and inner tubes	103	19,320	103			19,320		
Machinery, not including transportation equipment:								
Agricultural implements	73	6,353	72		1	6,232		121
Electrical machinery, apparatus, and supplies	290	103,075	289		1	103,026		49
Engines, turbines, tractors, and water wheels	88	14,942	88			14,942		
Cash registers, adding machines, and calculating machines	44	13,204	44			13,204		
Foundry and machine-shop products	1,075	98,030	1,057		18	95,902		2,128
Machine tools	147	10,867	144		3	10,823		44
Textile machinery and parts	44	6,593	44			6,593		
Typewriters and supplies	18	8,018	17		1	8,008		10
Radio	39	18,172	38		1	18,095		77
Railroad repair shops:								
Electric-railroad repair shops	387	20,620	382		5	20,478		142
Steam-railroad repair shops	548	78,760	548			78,760		

Nonmanufacturing Industries

DATA concerning wage-rate changes occurring between November 15 and December 15 in 14 groups of nonmanufacturing industries are presented in the following table.

No changes in wage rates were reported in the anthracite mining and the telephone and telegraph groups. In the remaining 12 groups, one or more establishments reported decreases in wage rates over the month interval. The average per cent of decrease in rates in each of the several groups follows: Electric-railroad and motor-bus operation and maintenance, 8.4 per cent; power and light and crude petroleum producing, 10 per cent each; dyeing and cleaning, 10.2 per cent; hotels, 10.3 per cent; laundries, 10.6 per cent; metalliferous mining, 11 per cent; quarrying and nonmetallic mining, 11.1 per cent; wholesale trade, 11.2 per cent; retail trade, 13.8 per cent; bituminous mining, 14.5 per cent; and canning and preserving, 16.4 per cent. No increases in wage rates from November to December were reported by establishments in these 14 industrial groups.

TABLE 2.—WAGE CHANGES IN **NONMANUFACTURING** INDUSTRIES DURING MONTH ENDING DECEMBER 15, 1932

Industrial group	Establishments reporting	Total number of employees	Number of establishments reporting—		Number of employees having—	
			No wage changes	Wage decreases	No wage changes	Wage decreases
Anthracite mining	160	85,284	160		85,284	
Per cent of total	100.0	100.0	100.0		100.0	
Bituminous coal mining	1,202	175,050	1,181	21	171,755	3,295
Per cent of total	100.0	100.0	98.3	1.7	98.1	1.9
Metalliferous mining	275	21,838	274	1	21,805	33
Per cent of total	100.0	100.0	99.6	.4	99.8	.2
Quarrying and nonmetallic mining	631	19,411	610	21	18,544	867
Per cent of total	100.0	100.0	96.7	3.3	95.5	4.5
Crude petroleum producing	276	22,019	275	1	21,593	426
Per cent of total	100.0	100.0	99.6	.4	98.1	1.9
Telephone and telegraph	8,302	269,598	8,302		269,598	
Per cent of total	100.0	100.0	100.0		100.0	
Power and light	3,523	209,993	3,503	20	206,744	3,249
Per cent of total	100.0	100.0	99.4	.6	98.5	1.5
Electric-railroad and motor-bus operation and maintenance	503	133,006	491	12	131,997	1,009
Per cent of total	100.0	100.0	97.6	2.4	99.2	.8
Wholesale trade	2,822	73,076	2,784	38	72,590	486
Per cent of total	100.0	100.0	98.7	1.3	99.3	.7
Retail trade	14,730	409,639	14,698	32	408,679	960
Per cent of total	100.0	100.0	99.8	.2	99.8	.2
Hotels	2,410	130,902	2,382	28	128,588	2,314
Per cent of total	100.0	100.0	98.8	1.2	98.2	1.8
Canning and preserving	902	30,121	897	5	29,983	138
Per cent of total	100.0	100.0	99.4	.6	99.5	.5
Laundries	965	57,407	955	10	56,849	558
Per cent of total	100.0	100.0	99.0	1.0	99.0	1.0
Dyeing and cleaning	337	10,270	332	5	10,149	121
Per cent of total	100.0	100.0	98.5	1.5	98.8	1.2

Wage Changes Reported by Trade-Unions and Municipalities Since October, 1932

UNION and municipal wage and hour changes covering 12,878 workers, occurring in the months of October, 1932, to January, 1933, are shown in the table following. Only two increases were reported and these were provided for in earlier wage agreements. There were 385 workers reported to have gone on the 5-day week. One union, musicians in St. Louis, Mo., reported a renewal of a wage agreement.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, OCTOBER, 1932, TO JANUARY, 1933

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Building trades:		*Per hour*	*Per hour*		
Carpenters, Butte, Mont., and vicinity	Dec. 12	$1.25	$1.06¼	40	40
Chauffeurs and teamsters, Chicago, Ill.:		*Per week*	*Per week*		
Milk-wagon drivers	Dec. 1	45.00	40.00	48	48
Clerks, Butte, Mont	Dec. 8	31.65	28.75	[1]	[1]
Marine workers, New York Harbor:					
Single-crew vessels other than those engaged in transport work and shifting on piers—					
Captains—		*Per month*	*Per month*		
Class A	Nov. 1	190	180	60	60
Class B	do	180	170	60	60
Class C	do	170	160	60	60
Engineers—					
Class A	do	180	170	60	60
Class B	do	170	160	60	60
Class C	do	160	150	60	60
Firemen	do	90–100	85–95	60	60
Deck hands	do	90	85	60	60
Cooks	do	90	85	60	60
Single-crew vessels engaged in transport work and shifting on piers—					
Captains—					
Class A	do	180	170	60	60
Class B	do	170	160	60	60
Class C	do	160	150	60	60
Engineers—					
Class A	do	170	160	60	60
Class B	do	160	150	60	60
Class C	do	150	140	60	60
Licensed mates	do	130	120	60	60
Firemen	do	85–95	80–90	60	60
Deck hands	do	85	80	60	60
Cooks	do	85	80	60	60
Double-crew vessels—					
Captains—					
Class A	do	230	220	72	72
Class B	do	220	210	72	72
Engineers—					
Class A	do	220	210	72	72
Class B	do	210	200	72	72
Pilots or mates—					
Class A	do	190	180	72	72
Class B	do	180	170	72	72
Assistant engineers—					
Class A	do	190	180	72	72
Class B	do	180	170	72	72
Firemen	do	85–95	80–90	72	72
Oilers	do	95	90	72	72
Deck hands	do	85–95	80–90	72	72
Cooks	do	90	85	72	72
Vessels engaged in mud and sand towing—					
Captains	do	250	240	72	72
Engineers	do	240	230	72	72
Pilots or mates	do	211	201	72	72
Assistant engineers	do	211	201	72	72
Firemen	do	95	90	72	72
Oilers	do	95	90	72	72
Deck hands	do	85	80	72	72
Cooks	do	105	100	72	72
Motion-picture operators:		*Per week*	*Per week*		
Burlington, Iowa	Dec. 17	90.00–110.00	76.50–93.50	70	70
Butler, Pa	Oct. 31	45.00	33.75	36	36
Colorado Springs, Colo	Oct. 21	[2] 58.35	[2] 38.50	42	23
Lancaster, Pa	Oct. 12	56.00–61.00	45.00–47.50	33	39
Michigan City, Ind	Nov. 1	47.50–78.50	40.00–75.00	51	53
Memphis, Tenn	Nov. 7	55.00–65.00	45.00–57.00	36	36
Muskogee, Okla	Nov. 15	50.00	40.00	35	35
Northampton, Mass	Oct. 9	38.50–70.00	38.50–63.00	36–46	36–46
Oswego, N. Y	Oct. 7	[2] 48.00	[2] 36.00	48	48
Warren, Pa	Oct. 17	50.00	40.00	44	40
Paper makers, Stevens Point, Wis	Nov. 1	*Per hour* .47–.86	*Per hour* .38–.75	[3] 8	[3] 8

[1] Not reported. [2] Average. [3] Hours per day.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, OCTOBER, 1932, TO JANUARY, 1933—Continued

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Printing and publishing:					
Compositors and machine operators—					
Lawrence, Mass.—		*Per day*	*Per day*		
Newspaper, day	Nov. 1	$7.33⅓	$7.50	45	45
Newspaper, night	do	7.83⅓	8.00	45	45
Taunton, Mass.—		*Per week*	*Per week*		
Newspaper, day	Oct. 1	43.00	43.50	48	48
Newspaper, night	do	46.00	46.50	48	48
Washington, D. C.—		*Per hour*	*Per hour*		
Newspaper, day	Jan. 1	1.286	1.286	42	35
Newspaper, night	do	1.429	1.429	42	35
		Per day	*Per day*		
Stone quarry workers, Ortonville, Minn	Oct. —	8.00	7.00	[1]	[1]
Municipal employees:					
Brockton, Mass.—					
Teachers	Dec. 1	[1]	[4]	[1]	[1]
Other city employees	Dec. 12	[1]	[4]	[1]	[1]
Perth Amboy, N. J., police department—		*Per year*	*Per year*		
Captains	Dec. 15	2,900	2,320	48	48
Lieutenants	do	2,700	2,160	48	48
Sergeants	do	2,600	2,080	48	48
Patrolmen	do	2,500	2,000	48	48

[1] Not reported, [4] 15 per cent reduction.

Report on Proposed Six-Hour Day for Railroad Employees

IN PURSUANCE of a joint resolution (No. 13)[1] of the Seventy-second Congress dated March 15, 1932, the Interstate Commerce Commission on December 6, 1932, published the results of its hearings to determine what would be the effect upon operation, service, and expenses of applying the principle of a 6-hour day in the employment of railway employees.[2]

The commission construed the term "railway employees" to include not only employees of steam railroads but also those of electric railways, express companies, and sleeping-car companies. Separate reports and statistics were made for each of these agencies.

In construing the "principle of a 6-hour day," the commission stated that this expression did not mean limiting each day's actual employment to six hours, but that "the number of hours worked per week or per month shall equal the product of the number of work days in the period times six."

In the opinion of the commission a work week might represent a total time of 36 hours, divided into 6 days of 6 hours each, or it might be a week of 5 days of 7 hours and 12 minutes each, or any other arrangement mutually satisfactory to both employer and employee.

It was, however, stressed by both parties at the hearings that an actual 6-hour day would be impracticable. The employees were agreed that, in order to avoid losses to the carriers from unproductive time, a week of varying time would be consistent with the principle of a 6-hour day.

[1] See Monthly Labor Review, May, 1932, p. 1150.
[2] United States. Interstate Commerce Commission. Ex Parte No. 106: Six-hour day investigation. Washington, Dec. 6, 1932. (Mimeographed.)

The question also was presented whether the commission would assume a 6-hour day at the existing 8-hour or other basic pay or a 6-hour day at a pro rata pay. The carriers were convinced that a 6-hour day at the present basic pay was intended by the resolution. The employees were of the same opinion, believing that the purpose of the short day was to create more employment and to stabilize compensation and hence not lower the standard of living of those now employed. The commission was of the opinion that the resolution contemplated the establishment of a 6-hour day at the present basic pay, its findings, however, were calculated on both assumptions.

As to the operation and service of the several carriers, the commission found that the principle of a 6-hour day could be applied, so far as physical conditions are concerned, without any material effect.

The commission was of the opinion that the adoption of the principle of a 6-hour day in a year of abnormal economic conditions would result in the employment of 60,000 to 100,000 additional employees. In a year such as 1930 it was estimated that between 300,000 and 350,000 additional employees would be required in the event a shorter work week was adopted.

The extent of the increased expenditure may be best observed by following the findings of the commission on this item.

(*a*) Assuming the same volume of traffic and operations as in 1930, and assuming no reduction in the then-existing compensation for an 8-hour or other basic day's work, the initial effect would be to increase operating expenses of the carriers collectively, including the express and sleeping-car companies, at the rate of approximately $630,000,000 per year, or about 14.6 per cent of the operating expenses, and approximately 22.2 per cent of the pay roll expenses in 1930. However, the compensation of steam railway, express, and sleeping-car employees was on February 1, 1932, reduced 10 per cent by an agreement which expires on January 31, 1933. Various reductions in wages of electric railway employees have also been made. If the wage reductions are continued, the above estimate of $630,000,000 would be reduced to something less than $570,000,000 per year.

(*b*) Assuming the same volume of traffic and operations as in 1930, and a reduction in the then-existing compensation pro rata to the reduction in the basic day's work, and excluding road train and engine service from consideration, for reasons stated in the report, the initial effect would be to decrease operating expenses of the carriers collectively, including the express and sleeping-car companies, at the rate of approximately $26,000,000 per year, or about 0.6 per cent of the operating expenses, and approximately 0.9 per cent of the pay-roll expenses in 1930. Allowing for the wage reductions above mentioned, this estimate would be reduced to something less than $24,500,000 per year.

(*c*) Using the same percentages of operating expense, and assuming the same volume of traffic and operations as in the 12 months ended with September, 1932, the initial effect would be an increase at the rate of approximately $414,000,000 per year under the first assumption with reference to wages and a decrease at the rate of approximately $20,000,000 per year under the second assumption. The estimates of $414,000,000 and $20,000,000 above given are probably both somewhat too high, if wage reductions are to be continued.

(*d*) The increase in expenses at the outset under the first wage assumption would gradually be lessened and the decrease in expenses at the outset under the second wage assumption would gradually be increased as the result of experience with the proposed new arrangement and by technological developments.

The report also pointed out the sharp decline in the number of railroad employees since 1930. Class I railroads [3] decreased the average number of their employees from 1,487,839 in 1930 to 1,031,014 in June, 1932, and two months later a further decline to 980,627 employees was reported. This reduction, it was pointed out, was due

[3] Having annual operating revenues of $1,000,000 or more.

partly to the business depression and partly to conditions resulting from increased operating efficiency, technological developments, etc.

The following table from the report shows by years the average number of employees, the revenue ton-miles carried, and the passenger-train car-miles.

NUMBER OF EMPLOYEES AND BUSINESS OF CLASS I RAILROADS IN THE UNITED STATES, 1920–1931

Year	Average number of employees	Revenue ton-miles	Passenger-train car-miles	Year	Average number of employees	Revenue ton-miles	Passenger-train car-miles
1920	2,022,832	410,306,210,000	3,583,449,540	1926	1,779,275	443,746,487,000	3,836,787,642
1921	1,659,513	306,840,204,000	3,469,062,198	1927	1,735,105	428,736,962,000	3,830,557,011
1922	1,626,834	339,285,348,000	3,414,344,834	1928	1,656,411	432,915,185,000	3,798,733,331
1923	1,857,674	412,727,228,000	3,585,263,479	1929	1,660,850	447,321,561,000	3,857,133,049
1924	1,751,362	388,415,312,000	3,646,362,908	1930	1,487,839	383,449,588,000	3,680,136,295
1925	1,744,311	413,814,261,000	3,746,426,910	1931	1,258,719	309,224,879,000	3,265,923,496

Average Weekly Wages in Victoria

THE chief inspector of shops and factories in Victoria includes in his report for the year ending December 31, 1931, a table of the average weekly wages paid in a number of trades in that State under determinations of wages boards. The term "wages board" in Australia signifies a body composed of representatives of employers and employees, which establishes wages and conditions of work by agreement, and which is looked upon as embodying the principle of conciliation as opposed to the compulsory arbitration of the courts. In Victoria wages boards have been established in a wide variety of trades and occupations, ranging from quarrymen to attendants in hospitals and benevolent asylums, and from gold miners to bill posters. Average weekly wages under these determinations in a number of the leading industries and occupations are shown in the following table:

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AVERAGE WEEKLY WAGES IN VICTORIA, ESTABLISHED BY WAGES BOARDS

[Conversions into United States currency on basis of shilling at par=24.33 cents, penny at par=2.03 cents; average exchange rate for December, 1931, shilling=16.9 cents, penny=1.4 cents]

Occupation or trade	Average weekly wages, December, 1931					
	Males		Females		All workers	
	Australian currency	United States currency	Australian currency	United States currency	Australian currency	United States currency
	s. d.		s. d.		s. d.	
Boots and shoes	76 2	$18.53	38 5	$9.35	58 4	$14.19
Bricklayers	104 1	25.33			104 1	25.33
Brick trade	73 1	17.78			73 1	17.78
Builders' laborers	75 6	18.37			75 6	18.37
Cardboard box trade	73 1	17.78	43 5	10.56	50 0	12.17
Carpenters	90 7	22.04			90 7	22.04
Cigar trade	70 3	17.09	39 8	9.65	60 9	14.78
Clerks, commercial	91 7	22.28	51 3	12.47	70 1	17.05
Clerks, law	108 10	26.48	60 0	14.60	95 7	23.26
Clothing	81 2	19.75	39 10	9.69	47 8	11.60
Clothing, waterproof	71 11	17.50	34 1	8.29	45 7	11.09
Electrical installation	86 7	21.07			86 7	21.07
Electrical supply	80 5	19.57			80 5	19.57
Engineers, factory	92 2	22.43			92 2	22.43
Machinists, skilled	82 7	20.09	27 9	6.75	82 4	20.03
Machinists, unskilled	62 5	15.19	36 10	8.96	62 0	15.09
Knitting trade	72 4	17.60	35 10	8.72	44 9	10.89
Laundry workers	61 9	15.03	34 0	8.27	37 0	9.00
Leather goods	70 9	17.22	34 4	8.35	48 1	11.70
Painters	92 0	22.39			92 0	22.39
Paper mills	72 1	17.54	36 4	8.84	66 7	16.20
Paper-bag trade	76 8	18.65	34 5	8.37	44 1	10.73
Plasterers	96 11	23.58			96 11	23.58
Plumbers	89 6	21.78			89 6	21.78
Pottery	61 1	14.86	29 3	7.12	57 3	13.93
Printing (metropolitan district)	90 9	22.08	40 10	9.94	86 9	21.11
Stonecutters	86 6	21.05			86 6	21.05
Woodworkers (carpenters, sawmills, etc.)	75 3	18.31			75 3	18.31
Woolen trade	68 3	16.61	36 9	8.94	50 2	12.21

Wages and Hours in the English Cutlery Trade, 1931

THE Ministry of Labor of Great Britain, in response to representations made to it that conditions in the cutlery trade called for the establishment of a trade board, recently undertook an inquiry into its wages and working conditions to see whether these representations were justified. Some of the findings of the inquiry are given in the issue of the Ministry of Labor Gazette for December, 1932 (p. 450), and relate to the period July to December, 1931. The investigation was confined to processes connected with the manufacture of steel or iron knives with fast handles, steel or iron spring knives, scissors, and razors other than safety razors, and to the production of blanks, blades, or other parts used in the manufacture of these articles.

The manufacture of cutlery is mainly carried on in the city of Sheffield, and is conducted under three different systems: Some firms conduct all or most of the manufacturing processes on their own premises, some specialize in certain processes only, such as the production of blanks and blades, and some issue raw materials or partly finished products to be wholly or partially manufactured by "outworkers." These outworkers usually receive materials from more than one employer; they may rent space in tenement or other factories, or have premises of their own; they may work singly or employ

assistants; their methods may vary widely, but their distinguishing characteristic is that they work upon and make up materials supplied by others.

It was impossible to cover all of the Sheffield firms engaged in the trade, but a representative sample was taken, consisting of approximately one-third of the manufacturing firms known to be engaged in the industry. In addition, the outworkers known to be engaged by these firms and a number of other outworkers were visited and asked for particulars concerning both themselves and any assistants whom they employed. Information was secured from 67 manufacturing firms and 156 outworkers.

The total number of workers covered by the sample inquiry was 2,926, of whom 61.1 per cent were males and 38.9 per cent were females. Time workers constituted 71.5 per cent of the total, and pieceworkers 28.5 per cent. All but 8 per cent of the women and girls were time workers.

Wages of Time Workers

DATA concerning the hourly wages of time workers were obtained for 2,091 employees, whose age and sex grouping is shown in the following table:

TABLE 1.—NUMBER OF TIME WORKERS STUDIED IN ENGLISH CUTLERY INDUSTRY, BY SEX AND AGE

Age group	Males	Females
Under 16	179	198
16 and under 18	159	243
18 and under 21	104	204
21 and over	600	404
Total	1,042	1,049

The proportion in each of these sex and age groups receiving specified hourly wage rates is shown in the following table:

TABLE 2.—PER CENT OF TIME WORKERS RECEIVING SPECIFIED HOURLY RATES

[Conversions into United States currency on basis of penny at par=2.03 cents; exchange rate, second half of 1931=1.7 cents]

Hourly wage	Per cent receiving specified rate							
	Males				Females			
	Under 16	16 and under 18	18 and under 21	21 and over	Under 16	16 and under 18	18 and under 21	21 and over
Under 2d. (4.1 cents)	5.6	0.6	.....	.....	32.8	5.4	1.9	.....
2d. and under 3d. (4.1 and under 6.1 cents)	74.8	12.0	1.9	.....	62.2	38.7	8.3	0.3
3d. and under 4d. (6.1 and under 8.1 cents)	17.3	50.3	3.8	.....	4.5	42.4	16.7	2.9
4d. and under 5d. (8.1 and under 10.1 cents)	2.3	23.3	17.3	0.2	.....	12.3	36.2	10.4
5d. and under 6d. (10.1 and under 12.2 cents)	.....	6.9	21.1	.7	.5	1.2	31.5	40.1
6d. and under 7d. (12.2 and under 14.2 cents)	.....	3.7	20.2	1.3	.....	.....	3.9	26.7
7d. and under 8d. (14.2 and under 16.2 cents)	.....	2.6	16.3	3.4	.....	.....	1.5	13.3
8d. and under 9d. (16.2 and under 18.3 cents)	.....	.6	6.8	3.2	.....	.....	.....	4.3
9d. and under 10d. (18.3 and under 20.3 cents)	.....	.....	8.6	5.3	.....	.....	.....	.7
10d. and under 11d. (20.3 and under 22.3 cents)	.....	.....	1.0	5.2	.....	.....	.....	.5
11d. and under 12d. (22.3 and under 24.3 cents)	.....	.....	1.0	8.9	.....	.....	.....	.5
12d. and under 13d. (24.3 and under 26.4 cents)	.....	.....	2.0	11.8	.....	.....	.....	.....
13d. and under 14d. (26.4 and under 28.4 cents)	.....	.....	.....	12.5	.....	.....	.....	.....
14d. and under 15d. (28.4 and under 30.4 cents)	.....	.....	.....	12.4	.....	.....	.....	.....
15d. and under 16d. (30.4 and under 32.5 cents)	.....	.....	.....	11.0	.....	.....	.....	.....
16d. (32.5 cents) and over	.....	.....	.....	24.1	.....	.....	.....	.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Of the adult male time workers, 21 years of age and over, it will be seen that 14 per cent received less than 10d. [20.3 cents] an hour, 51 per cent received 10d. and under 1s. 3d. [30.4 cents] an hour, and 35 per cent received 1s. 3d. an hour or more; one-fourth received 11½d. [23.3 cents] an hour or less, and one-fourth received approximately 1s. 3¾d. [31.9 cents] or more. Of the women of 21 years of age and upwards, on time work, nearly 54 per cent were rated at less than 6d. [12.2 cents] an hour, nearly 27 per cent at 6d. and under 7d. [14.2 cents] an hour, and nearly 20 per cent at 7d. an hour or more; one-fourth received 5½d. [11.2 cents] an hour or less, and one-fourth received approximately 6¾d [13.7 cents] an hour or more. Of the women aged 18 to 20 years, inclusive, 27 per cent were rated at less than 4d. [8.1 cents] an hour, 36 per cent at 4d. and under 5d. [10.1 cents], and 37 per cent at 5d. an hour or more.

Wages by occupation are not given in detail, but the following table shows median and quartile hourly rates for adult men and women in some of the more important occupations:

TABLE 3.—MEDIAN AND QUARTILE HOURLY WAGE RATES OF ADULTS IN CUTLERY TRADE, BY SEX AND OCCUPATION

[Conversions into United States currency on basis of penny at par=2.03 cents; exchange rate, second half of 1931=1.7 cents]

Occupation	Number of workers	Lower quartile		Median		Upper quartile	
		English currency	United States currency	English currency	United States currency	English currency	United States currency
Men aged 21 and over:		*d.*	*Cents*	*d.*	*Cents*	*d.*	*Cents*
Foremen and charge hands	57	14.5	29.4	16.8	34.1	19.1	38.7
Table-knife machine forgers	65	10.3	20.9	15.5	31.4	20.6	41.8
Table-knife hand grinders	81	12.4	25.1	14.0	28.4	15.3	31.0
Table-knife hafters and finishers	145	10.8	21.9	12.0	24.3	14.0	28.4
Spring-knife hafters and finishers	69	11.9	24.1	13.0	26.4	13.7	27.8
Warehouse workers	41	9.4	19.1	13.1	26.6	14.5	29.4
Women aged 21 and over:							
Table-knife hafters and finishers	68	5.7	11.6	6.4	13.0	7.6	15.4
Table-knife mirror polishers	32	5.8	11.8	6.3	12.8	7.0	14.2
Warehouse workers	193	5.4	11.0	5.7	11.6	6.1	12.4
Etchers	52	5.0	10.1	5.6	11.4	6.4	13.0

The proportion of each sex and age group receiving certain specified weekly wage rates is shown in the following table:

TABLE 4.—PER CENT OF TIME WORKERS RECEIVING SPECIFIED RATES FOR FULL-TIME WEEK, BY SEX AND AGE

[Conversions into United States currency on basis of shilling at par=24.33 cents; exchange rate, second half of 1931=20.4 cents]

Full-time weekly wage rate	Per cent receiving specified rate							
	Males				Females			
	Under 16	16 and under 18	18 and under 21	21 and over	Under 16	16 and under 18	18 and under 21	21 and over
5s. and under 10s. ($1.22 and under $2.43)	46.4	1.9			76.2	19.8	1.9	
10s. and under 15s. ($2.43 and under $3.65)	50.2	54.1	4.8		23.3	61.3	20.1	2.2
15s. and under 20s. ($3.65 and under $4.87)	3.4	30.8	18.3	0.2		17.7	45.1	9.9
20s. and under 25s. ($4.87 and under $6.08)		8.8	27.8	1.0	.5	1.2	29.4	53.5
25s. and under 30s. ($6.08 and under $7.30)		3.8	24.1	1.8			2.0	23.3
30s. and under 35s. ($7.30 and under $8.52)			12.5	4.8			1.5	9.0
35s. and under 40s. ($8.52 and under $9.73)		.6	7.7	6.2				1.0
40s. and under 45s. ($9.73 and under $10.95)			2.9	8.5				.5
45s. and under 50s. ($10.95 and under $12.17)			1.9	13.8				.2
50s. and under 55s. ($12.17 and under $13.38)				17.8				.2
55s. and under 60s. ($13.38 and under $14.60)				14.3				
60s. and under 65s. ($14.60 and under $15.82)				11.4				
65s. ($15.82) and over				20.2				.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Of the men aged 21 years and over, the rates of wages of 14 per cent were less than 40s. [$9.73] for a full week, of 54 per cent were 40s. and under 60s. [$14.60], and of 32 per cent were 60s. or more; one-fourth were rated at 45s. [$10.95] or less, and one-fourth at over 61s. [$14.84]. Of the women aged 21 years and over, nearly 66 per cent were rated at less than 25s. [$6.08] for a full week, 23 per cent at 25s. and under 30s. [$7.30], and 11 per cent at 30s. or more; one-fourth received 21s. [$5.11] or less per week, and one-fourth 26s. [$6.33] or more. Among the women aged 18 to 20 years, inclusive, one-fourth had weekly rates of wages of 15s. [$3.65] or less, and one-fourth 20s. [$4.87] or more.

Earnings of Pieceworkers

PIECEWORK wages are based upon a series of price lists which have been agreed upon between the employers' associations and the trade-unions, and which cover in an elaborate and complicated manner all the various processes of the trade. From time to time these lists have been subject to percentage advances or bonuses, and also to other additions known as "poundages," or allowances of so much in the pound to cover cost of materials and other expenses. The price lists are generally known throughout the trade, but are not universally followed, and neither is there uniformity as to the allowance and amount of the percentage and poundage additions. Piecework rates, therefore, are a complicated matter, and net hourly earnings are used in their place. These also become difficult of calculation in the case of those who take work from more than one employer, who may be paid perhaps at different rates for the same occupation, and who must spend part of their time in carrying the work back and forth.

The following table, therefore, deals with hourly earnings of piece-workers who take work from one employer only and who perform it on his premises. Data were collected concerning 618 of these, of whom 18 were males under 21 years of age. This group, as being rather small, was omitted from the table, while the female workers under 21 are included.

TABLE 5.—PER CENT OF PIECEWORKERS AVERAGING SPECIFIED NET HOURLY EARNINGS, BY SEX AND AGE

[Conversions into United States currency on basis of penny at par=2.03 cents; exchange rate, second half of 1931=1.7 cents]

Average net hourly earnings	Per cent having specified net hourly earnings		
	Males	Females	
	21 years and over	21 years and over	Under 21 years
Under 4d. (8.1 cents)	0.6	5.1	22.2
4d. and under 5d. (8.1 and under 10.1 cents)	.4	12.8	31.1
5d. and under 6d. (10.1 and under 12.2 cents)	2.5	12.8	17.8
6d. and under 7d. (12.2 and under 14.2 cents)	2.0	20.5	9.0
7d. and under 8d. (14.2 and under 16.2 cents)	1.8	15.4	13.3
8d. and under 9d. (16.2 and under 18.3 cents)	4.2	15.4	4.4
9d. and under 10d. (18.3 and under 20.3 cents)	5.0	10.3	
10d. and under 11d. (20.3 and under 22.3 cents)	7.6	5.1	2.2
11d. and under 12d. (22.3 and under 24.3 cents)	8.1		
12d. and under 13d. (24.3 and under 26.4 cents)	8.7		
13d. and under 14d. (26.4 and under 28.4 cents)	8.3		
14d. and under 15d. (28.4 and under 30.4 cents)	7.4		
15d. and under 16d. (30.4 and under 32.5 cents)	6.5		
16d. and under 17d. (32.5 and under 34.5 cents)	4.6	2.6	
17d. and under 18d. (34.5 and under 36.5 cents)	5.8		
18d. and under 19d. (36.5 and under 38.5 cents)	5.0		
19d. and under 20d. (38.5 and under 40.6 cents)	5.0		
20d. (40.6 cents) and over	16.5		
Total	100.0	100.0	100.0
Number of workers included	516	39	45

It will be seen from the above table that of the adult males who constituted the great majority of the pieceworkers, about 16 per cent earned under 10d. [20.3 cents] and 32 per cent under 1s. [24.3 cents] an hour, 24 per cent earned 1s. and under 1s. 3d. [30.4 cents] an hour, 17 per cent 1s. 3d. and under 1s. 6d. [36.5 cents] an hour, 10 per cent 1s. 6d. and under 1s. 8d. [40.6 cents] an hour, and about 17 per cent 1s. 8d. an hour or over. One-fourth of the total earned approximately 11d. [22.3 cents] an hour or less, and one-fourth 1s. 6¼d. [37 cents] an hour or more.

Comparatively few women were employed on piecework; of such adults as were employed, about 18 per cent received under 5d. [10.1 cents] and about 31 per cent under 6d. [12.2 cents] an hour; 36 per cent received 6d. and under 8d. [16.2 cents] an hour, and over 33 per cent 8d. an hour or more.

Hours of Work

THE following table, showing normal weekly hours, is based on data concerning 2,091 timeworkers, of whom 1,042 were males and 1,049 were females, and 618 pieceworkers, of whom 534 were males and 84 females. The percentages whose normal hours of work per week fell within certain specified limits were as follows:

TABLE 6.—PER CENT OF TIME AND PIECEWORKERS HAVING SPECIFIED NORMAL WEEKLY HOURS, BY SEX

Normal full-time weekly hours	Per cent having specified weekly hours					
	Timeworkers			Pieceworkers		
	Males	Females	Both sexes	Males	Females	Both sexes
51 and over	0.6	0.1	0.3	1.5	----------	1.3
50 and under 51	4.9	9.6	7.3	6.9	3.6	6.5
49 and under 50	8.8	15.5	12.2	10.5	25.0	12.5
48 and under 49	22.2	21.7	22.0	30.0	39.3	31.2
47 and under 48	33.2	22.5	27.8	45.0	26.2	42.4
46 and under 47	24.0	19.4	21.7	2.2	5.9	2.7
Under 46	6.3	11.2	8.7	3.9	----------	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

In the case of timeworkers, the normal weekly hours coincided in all but a very few instances with the hours actually worked, but a considerable number of pieceworkers were at the date of the inquiry working a week substantially shorter than their normal full-time week. Of the total of 618 male and female pieceworkers, about 24 per cent worked on an average less than 30 hours a week, 13 per cent averaged 30 and under 40 hours, 34 per cent 40 and under 48 hours, 18 per cent 48 hours, and 11 per cent over 48 hours, during the 4-week period for which particulars were obtained.

TREND OF EMPLOYMENT

Summary for December, 1932

EMPLOYMENT decreased 0.4 per cent in December, 1932, as compared with November, 1932, and pay-roll totals decreased 0.9 per cent. These figures are based on the pay rolls ending nearest the 15th of the month.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the pay rolls for one week, for both November and December, 1932, together with the per cents of change in December are shown in the following tabulation:

SUMMARY OF EMPLOYMENT AND EARNINGS, NOVEMBER AND DECEMBER, 1932

Industrial groups	Establishments	Employment		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		November, 1932	December, 1932		November, 1932	December, 1932	
Manufacturing	**18,044**	**2,676,652**	**2,636,280**	[1] **−1.9**	**$45,726,474**	**$44,795,448**	[1] **−2.3**
Coal mining	**1,362**	**259,211**	**260,334**	**+.4**	**4,545,173**	**4,729,475**	**+4.1**
Anthracite	160	85,685	85,284	−.5	2,027,786	2,235,194	+10.2
Bituminous	1,202	173,526	175,050	+.9	2,517,387	2,494,281	−.9
Metalliferous mining	**275**	**20,965**	**21,838**	**+4.2**	**397,881**	**397,624**	**−.1**
Quarrying and nonmetallic mining	**631**	**22,687**	**19,411**	**−14.4**	**338,712**	**275,304**	**−18.7**
Crude petroleum producing	**276**	**21,752**	**22,019**	**+1.2**	**627,544**	**616,803**	**−1.7**
Public utilities	**12,328**	**617,319**	**612,597**	**−.8**	**16,974,666**	**16,902,929**	**−.4**
Telephone and telegraph	8,302	272,000	269,598	−.9	7,163,557	7,082,328	−1.1
Power and light	3,523	211,587	209,993	−.8	6,144,666	6,140,082	−.1
Electric-railroad and motor-bus operation and maintenance	503	133,732	133,006	−.5	3,666,443	3,680,519	+.4
Trade	**17,552**	**425,316**	**482,715**	**+13.5**	**8,992,593**	**9,676,417**	**+7.6**
Wholesale	2,822	73,643	73,076	−.8	1,984,926	1,963,142	−1.1
Retail	14,730	351,673	409,639	+16.5	7,007,667	7,713,275	+10.1
Hotels	**2,410**	**132,756**	**130,902**	**−1.4**	[2] **1,813,945**	[2] **1,784,651**	**−1.6**
Canning and preserving	**902**	**45,068**	**30,121**	**−33.2**	**505,989**	**377,458**	**−25.4**
Laundries	**965**	**57,641**	**57,407**	**−.4**	**876,198**	**869,562**	**−.8**
Dyeing and cleaning	**337**	**10,651**	**10,270**	**−3.6**	**180,848**	**167,440**	**−7.4**
Building construction	**10,090**	**79,163**	**66,836**	**−15.6**	**1,908,033**	**1,513,092**	**−20.7**
Banks, brokerage, insurance, and real estate	**3,260**	**127,540**	**126,971**	**−.4**	**4,474,416**	**4,440,538**	**−.8**
Total	**68,432**	**4,496,721**	**4,477,701**	**−.4**	**87,362,472**	**86,546,741**	**−.9**

[1] Weighted per cent of change for the combined 89 manufacturing industries, wherein the proper allowance is made for the relative importance of the several industries so that the figures represent all establishments of the country in the 89 industries surveyed; the remaining per cents of change, including total, are unweighted.

[2] The amount of pay roll given represents cash payments only; the additional value of board, room, and tips can not be computed.

Data are not yet available concerning railroad employment for December, 1932. (See section "Class I steam railroads" for latest figures reported.)

Per capita weekly earnings in December, 1932, for each of the 17 industrial groups included in the bureau's monthly trend-of-employment survey, together with the per cents of change in December, 1932,

as compared with November, 1932, and December, 1931, are given in the table following. These per capita weekly earnings must not be confused with full-time weekly rates of wages; they are per capita weekly earnings computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

PER CAPITA WEEKLY EARNINGS IN 17 INDUSTRIAL GROUPS IN DECEMBER, 1932, AND COMPARISON WITH NOVEMBER, 1932, AND DECEMBER, 1931

Industrial group	Per capita weekly earnings in December, 1932	Per cent of change December, 1932, compared with—	
		November, 1932	December, 1931
Manufacturing	$16.99	−0.5	−17.4
Coal mining:			
Anthracite	26.21	+10.7	−8.2
Bituminous	14.25	−1.8	−16.3
Metalliferous mining	18.21	−4.1	−16.1
Quarrying and nonmetallic mining	14.18	−5.0	−23.8
Crude petroleum producing	28.01	−2.9	−22.7
Public utilities:			
Telephone and telegraph	26.27	−.3	−11.9
Power and light	29.24	+.7	−7.5
Electric-railroad and motor-bus operation and maintenance	27.67	+.9	−11.0
Trade:			
Wholesale	26.86	−.3	−12.6
Retail	18.83	−5.5	−12.8
Hotels (cash payments only)[1]	13.63	−.2	−14.8
Canning and preserving	12.53	+11.6	−16.2
Laundries	15.15	−.3	−14.8
Dyeing and cleaning	16.30	−4.0	−19.5
Building construction	22.64	−6.1	[2]
Banks, brokerage, insurance, and real estate	35.08	−.3	[2]
Total	[3] 18.81	[3] −.4	[3] −15.0

[1] The additional value of board, room, and tips can not be computed.
[2] Data not available.
[3] Not including building construction or banks, etc.

Employment in Selected Manufacturing Industries in December, 1932

Comparison of Employment and Pay-Roll Totals in December, 1932, with November, 1932, and December, 1931

EMPLOYMENT in manufacturing industries decreased 1.9 per cent in December, 1932, as compared with November, 1932, and pay-roll totals decreased 2.3 per cent over the month interval. Comparing December, 1932, with December, 1931, decreases of 12.6 per cent in employment and 27.8 per cent in pay rolls are shown over the 12-month period.

The per cents of change in employment and pay-roll totals in December, 1932, as compared with November, 1932, are based on returns made by 18,044 establishments in 89 of the principal manufacturing industries in the United States, having in December, 2,636,280 employees, whose combined earnings in one week were $44,795,448.

The index of employment in December, 1932, was 58.3, as compared with 59.4 in November, 59.9 in October, 1932, and 66.7 in December, 1931; the pay-roll index in December, 1932, was 37.7 as compared with 38.6 in November, 39.9 in October, 1932, and 52.2 in December, 1931. The 12-month average for 1926 equals 100.

In Table 1, which follows, are shown the number of identical establishments reporting in both November and December, 1932, in the 89 manufacturing industries, together with the total number of employees on the pay rolls of these establishments during the pay period ending nearest December 15, the amount of their weekly earnings in December, the per cents of change over the month and year intervals, and the indexes of employment and pay roll in December, 1932.

The monthly per cents of change for each of the 89 separate industries are computed by direct comparison of the total number of employees and of the amount of weekly pay roll reported in identical establishments for the two months considered. The per cents of change over the month interval in the several groups and in the total of the 89 manufacturing industries are computed from the index numbers of these groups, which are obtained by weighting the index numbers of the several industries in the groups by the number of employees or wages paid in the industries. The per cents of change over the year interval in the separate industries, in the groups and in the totals, are computed from the index numbers of employment and pay-roll totals.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN NOVEMBER AND DECEMBER, 1932, AND DECEMBER, 1931

Industry	Establishments reporting in both November and December, 1932	Employment			Pay-roll totals			Index numbers December, 1932 (average 1926=100)	
		Number on pay roll December, 1932	Per cent of change		Amount of pay roll (1 week) December, 1932	Per cent of change			
			November to December, 1932	December, 1931, to December, 1932		November to December, 1932	December, 1931, to December, 1932	Employment	Pay-roll totals
Food and kindred products	**3,031**	**250,301**	**−2.6**	**−6.7**	**$4,989,899**	**−2.7**	**−19.9**	**83.2**	**64.9**
Slaughtering and meat packing	226	83,999	+(1)	−7.6	1,696,940	+1.9	−21.8	86.2	68.1
Confectionery	334	38,300	−6.7	−3.1	540,748	−1.9	−19.4	86.4	63.7
Ice cream	393	10,408	−3.5	−9.9	264,399	−6.8	−26.3	61.9	47.0
Flour	430	15,960	−.2	−3.4	337,354	−1.5	−11.6	82.8	66.6
Baking	962	61,703	−.6	−9.1	1,350,243	−2.3	−19.7	78.9	64.6
Sugar refining, cane	15	7,939	−2.2	−6.6	189,431	−2.0	−13.3	74.7	61.2
Beet sugar	60	17,693	−15.7	+11.5	277,448	−28.4	−17.4	201.1	111.9
Beverages	322	8,888	−6.1	−15.1	220,543	−1.5	−21.6	63.9	50.6
Butter	289	5,411	−2.0	−4.5	112,793	−4.0	−18.9	93.8	73.6
Textiles and their products	**3,056**	**617,247**	**−2.3**	**−2.5**	**7,770,716**	**−5.5**	**−20.0**	**71.3**	**44.8**
Cotton goods	677	233,465	−.5	+1.9	2,425,621	−3.3	−12.1	75.2	49.9
Hosiery and knit goods	438	100,488	−4.4	+.8	1,321,201	−10.2	−13.8	85.2	59.3
Silk goods	240	44,681	−1.8	−15.8	570,121	−2.6	−33.5	59.7	38.5
Woolen and worsted goods	252	56,723	+.3	+8.3	908,140	+4.0	−6.3	71.5	51.7
Carpets and rugs	34	13,757	−4.8	−17.0	212,705	−6.8	−31.0	52.4	31.0
Dyeing and finishing textiles	154	34,393	−.1	−6.0	598,310	−1.3	−25.5	78.0	53.3
Clothing, men's	379	57,975	−6.7	−2.7	661,594	−19.1	−28.3	65.0	30.7
Shirts and collars	117	16,293	−1.9	−2.0	173,844	−5.3	−3.5	64.0	41.4
Clothing, women's	380	23,956	−1.5	−13.2	382,554	−6.2	−35.0	63.8	36.0
Millinery	131	8,011	−6.6	−11.3	117,885	−6.0	−29.3	59.9	35.3
Corsets and allied garments	30	5,272	−1.4	+.3	77,655	−.5	−6.2	98.3	76.6
Cotton small wares	117	9,462	−4.3	−4.9	137,997	−5.0	−20.5	78.8	54.7
Hats, fur-felt	36	5,270	−6.0	−6.6	100,189	−3.3	−2.4	65.2	41.5
Men's furnishings	71	7,501	−5.1	−4.0	82,900	−17.1	−32.1	69.5	40.7

[1] Less than one-tenth of 1 per cent.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN NOVEMBER AND DECEMBER, 1932, AND DECEMBER, 1931—Con.

Industry	Establishments reporting in both November and December, 1932	Employment			Pay-roll totals			Index numbers December, 1932 (average 1926=100)	
		Number on pay roll December, 1932	Per cent of change		Amount of pay roll (1 week) December, 1932	Per cent of change		Employment	Pay-roll totals
			November to December, 1932	December, 1931, to December, 1932		November to December, 1932	December, 1931, to December, 1932		
Iron and steel and their products, not including machinery	**1,383**	**285,193**	**−3.4**	**−19.7**	**$3,898,008**	**−6.9**	**−40.2**	**51.4**	**24.2**
Iron and steel	209	170,482	−2.0	−17.3	2,130,694	−5.0	−41.0	52.1	21.9
Cast-iron pipe	38	5,411	−3.8	−40.9	68,365	+3.8	−60.0	29.0	14.8
Structural and ornamental ironwork	197	13,492	−.8	−35.7	217,319	−7.0	−51.0	40.0	21.8
Hardware	105	20,984	−.2	−17.5	282,436	+2.2	−37.7	49.8	25.0
Steam fittings and steam and hot-water heating apparatus	98	13,241	−11.4	−29.2	219,593	−14.9	−39.7	34.0	19.0
Stoves	152	14,497	−9.9	−7.5	222,630	−18.6	−23.7	49.5	25.8
Bolts, nuts, washers, and rivets	69	8,310	+.2	−13.9	125,424	−2.0	−31.8	61.5	33.7
Cutlery (not including silver and plated cutlery) and edge tools	129	8,681	−4.5	−15.2	151,251	−7.0	−28.2	61.3	39.3
Forgings, iron and steel	60	4,874	+.5	−24.3	73,481	+5.6	−40.7	53.4	27.8
Plumbers' supplies	69	5,274	−17.0	−34.1	68,571	−33.7	−58.1	46.1	21.1
Tin cans and other tinware	60	8,165	−2.9	−6.7	154,138	+1.8	−13.6	71.1	42.5
Tools (not including edge tools, machine tools, files, or saws)	128	6,818	−1.2	−25.7	109,553	−2.9	−38.6	61.1	34.7
Wirework	69	4,964	−3.2	−18.3	74,553	−13.9	−39.4	87.3	52.8
Lumber and allied products	**1,627**	**120,252**	**−3.9**	**−18.3**	**1,464,659**	**−9.6**	**−38.8**	**36.6**	**18.8**
Lumber—									
Sawmills	645	58,826	−4.8	−15.9	638,667	−13.0	−37.8	33.4	15.8
Millwork	485	17,714	−2.8	−29.0	247,594	−8.2	−46.6	33.0	18.3
Furniture	476	42,649	−3.2	−19.3	563,950	−6.9	−38.3	45.9	23.8
Turpentine and rosin	21	1,063	+2.1	−3.2	14,448	+1.6	−7.9	45.8	37.4
Leather and its manufactures	**498**	**122,062**	**−3.6**	**−4.3**	**1,697,874**	**−4.0**	**−16.3**	**69.3**	**40.7**
Leather	164	25,212	−1.4	+1.1	461,587	−1.8	−8.3	70.7	53.1
Boots and shoes	334	96,850	−4.1	−5.5	1,236,287	−4.5	−19.1	69.0	37.2
Paper and printing	**1,922**	**214,528**	**−.7**	**−10.1**	**5,284,162**	**−.6**	**−23.1**	**79.5**	**64.9**
Paper and pulp	410	78,517	−2.6	−5.9	1,348,889	−7.1	−24.1	73.0	46.7
Paper boxes	314	20,716	−2.9	−11.8	356,650	−5.9	−22.3	71.9	58.0
Printing—									
Book and job	752	47,683	+1.2	−16.1	1,288,052	+4.0	−28.7	72.7	59.3
Newspapers and periodicals	446	67,612	+.1	−6.8	2,290,571	+.1	−18.4	98.0	85.8
Chemicals and allied products	**1,036**	**148,723**	**−.5**	**−6.7**	**3,262,869**	**−2.0**	**−18.8**	**75.6**	**59.7**
Chemicals	121	20,712	−.9	−7.0	482,850	−3.0	−20.4	84.6	59.8
Fertilizers	203	6,053	−5.5	−10.3	80,313	−1.2	−26.2	43.5	30.4
Petroleum refining	135	52,963	+1.7	−7.1	1,389,358	−.3	−19.2	62.5	51.8
Cottonseed oil, cake, and meal	46	2,465	−6.6	−4.8	25,736	−5.8	−27.0	51.1	44.3
Druggists' preparations	41	7,486	−.7	−11.2	152,721	−1.3	−18.5	71.4	70.9
Explosives	26	3,297	+.4	−11.8	64,441	−4.5	−23.0	79.3	51.7
Paints and varnishes	354	14,454	−2.0	−11.9	301,887	−4.5	−26.7	65.7	49.3
Rayon	23	28,731	+2.9	−.7	487,398	+1.9	−7.6	146.9	122.5
Soap	87	12,562	−3.8	−3.3	278,165	−4.5	−12.5	94.5	79.2
Stone, clay, and glass products	**1,321**	**80,800**	**−6.9**	**−23.6**	**1,265,046**	**−7.7**	**−39.2**	**40.7**	**23.9**
Cement	119	11,222	−19.8	−33.0	175,185	−25.7	−50.7	32.9	17.2
Brick, tile, and terra cotta	678	16,009	−12.8	−36.2	180,086	−14.0	−54.6	23.8	9.9
Pottery	121	14,628	−.6	−9.7	227,908	−2.2	−27.2	62.3	36.9
Glass	189	33,938	−1.2	−12.5	576,881	−4.5	−27.0	57.2	38.4
Marble, granite, slate, and other stone products	214	5,003	−7.3	−32.5	104,986	−3.0	−46.2	43.2	28.1

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN NOVEMBER AND DECEMBER, 1932, AND DECEMBER, 1931—Con.

Industry	Establishments reporting in both November and December, 1932	Employment			Pay-roll totals			Index numbers December, 1932 (average 1926=100)	
		Number on pay roll December, 1932	Per cent of change		Amount of pay roll (1 week) December, 1932	Per cent of change			
			November to December, 1932	December, 1931, to December, 1932		November to December, 1932	December, 1931, to December, 1932	Employment	Pay-roll totals
Nonferrous metals and their products	**625**	**78,976**	**−2.4**	**−16.0**	**$1,320,622**	**−6.9**	**−31.7**	**53.1**	33.6
Stamped and enameled ware	88	12,646	−5.1	−9.8	188,734	−11.6	−30.5	59.7	34.6
Brass, bronze, and copper products	204	27,450	−1.8	−18.1	449,960	−4.6	−35.1	51.0	29.6
Aluminum manufactures	26	4,877	−1.6	−13.3	78,233	−5.0	−26.4	47.5	29.0
Clocks, time-recording devices, and clock movements	24	5,264	−.4	−29.8	73,471	−12.7	−36.9	43.3	28.4
Gas and electric fixtures, lamps, lanterns, and reflectors	53	4,790	−.5	−18.9	95,934	−4.0	−32.0	67.2	46.6
Plated ware	54	7,752	−2.8	−11.9	139,110	−12.9	−30.6	62.2	37.8
Smelting and refining—copper, lead, and zinc	28	8,152	+3.0	−14.9	136,333	+.6	−27.5	58.8	37.7
Jewelry	148	8,045	−12.1	−18.5	158,847	−7.9	−32.8	37.5	26.8
Tobacco manufactures	**242**	**54,467**	**−5.3**	**−3.9**	**703,868**	**−3.9**	**−14.4**	**70.8**	53.5
Chewing and smoking tobacco and snuff	34	10,027	−2.7	−2.3	134,563	−3.3	−12.4	86.8	69.4
Cigars and cigarettes	208	44,440	−5.6	−4.2	569,305	−4.0	−14.7	68.8	51.6
Transportation equipment	**393**	**211,905**	**+8.6**	**−24.8**	**4,385,826**	**+13.4**	**−33.3**	**45.7**	31.4
Automobiles	223	173,331	+11.3	−25.0	3,495,542	+15.6	−33.4	46.2	31.1
Aircraft	30	5,768	+2.2	−20.3	177,906	+3.9	−20.5	187.6	193.5
Cars, electric and steam railroad	39	5,473	−5.2	−3.8	98,636	−.6	−6.5	20.0	11.6
Locomotives	11	2,107	−1.5	−35.3	43,155	−2.2	−49.5	13.9	9.5
Shipbuilding	90	25,226	+.1	−28.9	570,587	+7.6	−38.2	66.8	51.5
Rubber products	**157**	**73,192**	**−.2**	**−8.9**	**1,315,547**	**+1.0**	**−21.3**	**64.5**	40.6
Rubber tires and inner tubes	45	42,627	−.9	−10.2	753,034	+1.7	−27.8	58.3	33.3
Rubber boots and shoes	9	11,245	+6.7	−15.6	214,172	+8.2	−7.7	58.9	48.9
Rubber goods, other than boots, shoes, tires, and inner tubes	103	19,320	−2.1	−2.7	348,341	−3.0	−15.3	83.6	56.3
Machinery, not including transportation equipment	**1,818**	**279,254**	**−.9**	**−27.2**	**5,106,299**	**+1.1**	**−41.7**	**45.4**	27.0
Agricultural implements	73	6,353	+15.2	−29.3	93,528	+14.3	−32.6	26.0	18.0
Electrical machinery, apparatus, and supplies	290	103,075	−1.0	−33.1	2,053,872	+.2	−46.3	48.6	32.5
Engines, turbines, tractors, and water wheels	88	14,942	+.9	−29.9	297,195	+5.7	−37.0	40.1	25.0
Cash registers, adding machines, and calculating machines	44	13,204	−.4	−17.8	307,602	+.1	−26.8	63.1	45.6
Foundry and machine-shop products	1,075	98,030	−.5	−23.6	1,586,217	+1.3	−40.7	44.1	23.3
Machine tools	147	10,867	+2.6	−37.5	200,526	+3.0	−49.5	31.3	18.8
Textile machinery and parts	44	6,593	+2.4	−20.6	116,664	+7.5	−40.4	54.2	34.6
Typewriters and supplies	18	8,018	−12.5	−32.9	130,636	−1.9	−37.1	51.8	32.1
Radio	39	18,172	−9.3	−13.1	320,059	−12.8	−30.6	70.4	50.9
Railroad repair shops	**935**	**99,380**	**−1.4**	**−9.8**	**2,330,053**	**−.3**	**−21.4**	**49.5**	39.0
Electric railroad	387	20,620	+.4	−10.5	537,473	+3.7	−22.7	65.9	54.5
Steam railroad	548	78,760	−1.6	−9.7	1,792,580	−.8	−21.2	48.2	37.8
Total, 89 industries	**18,044**	**2,636,280**	**−1.9**	**−12.6**	**44,795,448**	**−2.3**	**−27.8**	**58.3**	37.7

Per Capita Earnings in Manufacturing Industries

PER CAPITA weekly earnings in December, 1932, for each of the 89 manufacturing industries surveyed by the Bureau of Labor Statistics, together with the per cents of change in December, 1932, as compared with November, 1932, and December, 1931, are shown in Table 2.

These earnings must not be confused with full-time weekly rates of wages. They are per capita weekly earnings, computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING** INDUSTRIES IN DECEMBER, 1932, AND COMPARISON WITH NOVEMBER, 1932, AND DECEMBER, 1931

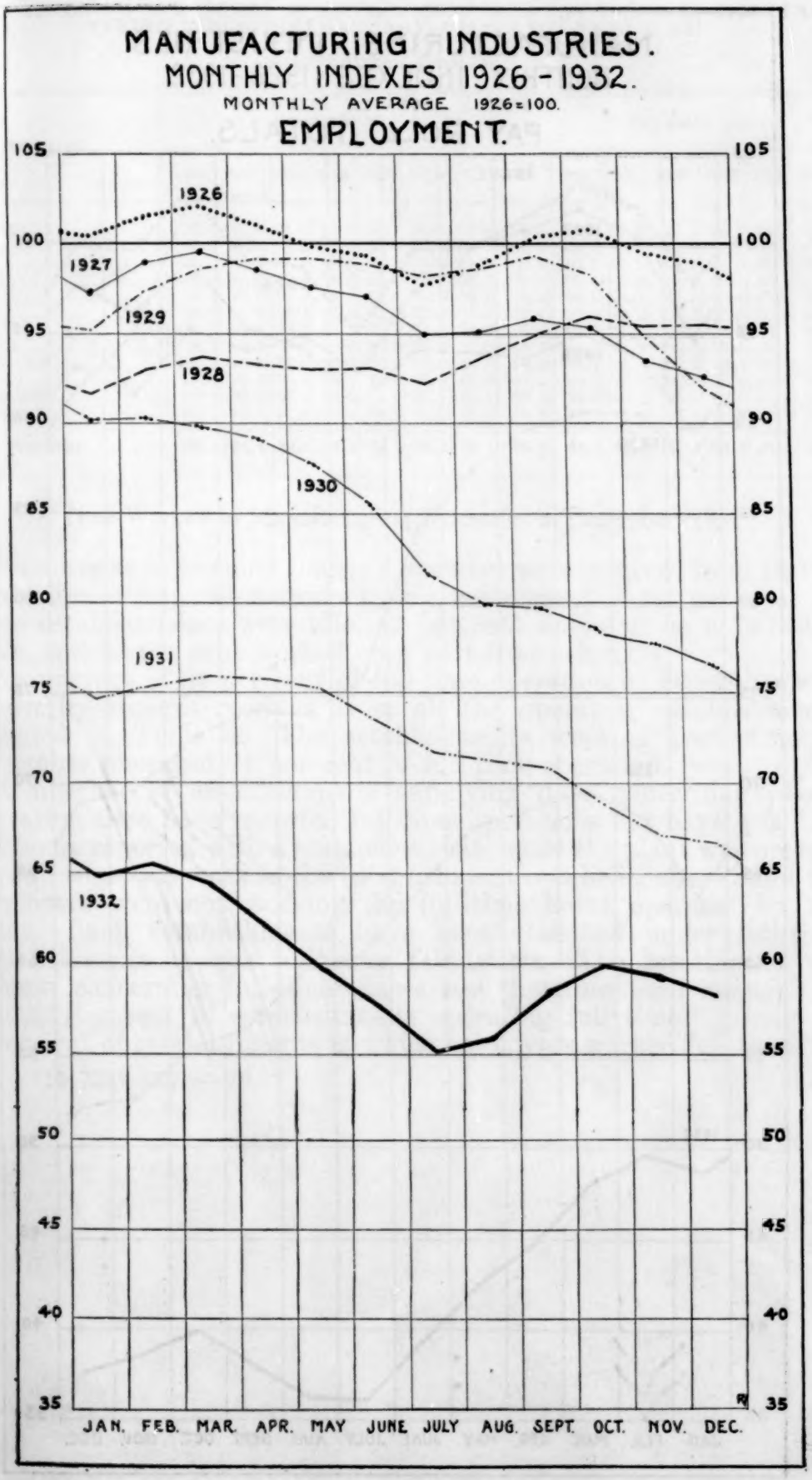
Industry	Per capita weekly earnings in December, 1932	Per cent of change compared with—	
		November, 1932	December, 1931
Food and kindred products:			
Slaughtering and meat packing	$20.20	+1.9	−15.5
Confectionery	14.12	+5.2	−16.8
Ice cream	25.40	−3.4	−18.3
Flour	21.14	−1.3	−8.1
Baking	21.88	−1.7	−11.6
Sugar refining, cane	23.86	+.3	−7.2
Beet sugar	15.68	−15.0	−25.7
Beverages	24.81	+4.9	−7.9
Butter	20.85	−2.0	−14.9
Textiles and their products:			
Cotton goods	10.39	−2.9	−13.5
Hosiery and knit goods	13.15	−6.0	−14.4
Silk goods	12.76	−.9	−21.0
Woolen and worsted goods	16.01	+3.8	−13.4
Carpets and rugs	15.46	−2.2	−17.5
Dyeing and finishing textiles	17.40	−1.2	−20.6
Clothing, men's	11.41	−13.4	−26.3
Shirts and collars	10.67	−3.4	−1.0
Clothing, women's	15.97	−4.8	−25.2
Millinery	14.72	+.5	−20.2
Corsets and allied garments	14.73	+1.0	−6.4
Cotton small wares	14.58	−.8	−16.3
Hats, fur-felt	19.01	+2.9	+4.3
Men's furnishings	11.05	−12.6	−29.4
Iron and steel and their products, not including machinery:			
Iron and steel	12.50	−3.0	−29.1
Cast-iron pipe	12.63	+7.9	−32.2
Structural and ornamental ironwork	16.11	−6.2	−23.7
Hardware	13.46	+2.4	−24.0
Steam fittings and steam and hot-water heating apparatus	16.58	−4.0	−14.9
Stoves	15.36	−9.6	−17.6
Bolts, nuts, washers, and rivets	15.09	−2.3	−20.8
Cutlery (not including silver and plated cutlery) and edge tools	17.42	−2.7	−15.1
Forgings, iron and steel	15.08	+5.1	−21.8
Plumbers' supplies	13.00	−20.2	−36.5
Tin cans and other tinware	18.88	+4.8	−7.3
Tools (not including edge tools, machine tools, files, or saws)	16.07	−1.7	−17.4
Wirework	15.02	−11.1	−25.9
Lumber and allied products:			
Lumber—			
Sawmills	10.86	−8.7	−26.3
Millwork	13.98	−5.5	−24.5
Furniture	13.22	−3.9	−23.4
Turpentine and rosin	13.59	−.6	−4.6
Leather and its manufactures:			
Leather	18.31	−.4	−9.4
Boots and shoes	12.76	−.4	−14.4
Paper and printing:			
Paper and pulp	17.18	−4.7	−19.5
Paper boxes	17.22	−3.0	−11.9
Printing—			
Book and job	27.01	+2.8	−15.1
Newspapers and periodicals	33.88	−.1	−12.5

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING** INDUSTRIES IN DECEMBER, 1932, AND COMPARISON WITH NOVEMBER, 1932, AND DECEMBER, 1931—Continued

Industry	Per capita weekly earnings in December, 1932	Per cent of change compared with—	
		November, 1932	December, 1931
Chemicals and allied products:			
Chemicals	$23.31	−2.2	−14.4
Fertilizers	13.27	+4.7	−17.4
Petroleum refining	26.23	−2.0	−12.9
Cottonseed oil, cake, and meal	10.44	+.8	−23.4
Druggists' preparations	20.40	−.6	−8.6
Explosives	19.55	−4.8	−12.5
Paints and varnishes	20.89	−2.6	−17.0
Rayon	16.96	−1.0	−7.3
Soap	22.14	−.8	−9.8
Stone, clay, and glass products:			
Cement	15.61	−7.4	−26.4
Brick, tile, and terra cotta	11.25	−1.4	−28.4
Pottery	15.58	−1.6	−19.1
Glass	17.00	−3.4	−16.9
Marble, granite, slate, and other stone products	20.98	+4.6	−20.9
Nonferrous metals and their products:			
Stamped and enameled ware	14.92	−6.9	−23.2
Brass, bronze, and copper products	16.39	−2.8	−20.9
Aluminum manufactures	16.04	−3.4	−15.0
Clocks, time recording devices, and clock movements	13.96	−12.3	−10.6
Gas and electric fixtures, lamps, lanterns, and reflectors	20.03	−3.5	−15.8
Plated ware	17.95	−10.4	−21.1
Smelting and refining—copper, lead, and zinc	16.72	−2.3	−14.8
Jewelry	19.74	+4.7	−17.6
Tobacco manufactures:			
Chewing and smoking tobacco and snuff	13.42	−.7	−10.4
Cigars and cigarettes	12.81	+1.7	−11.1
Transportation equipment:			
Automobiles	20.17	+3.9	−11.5
Aircraft	30.84	+1.6	−.2
Cars, electric and steam railroad	18.02	+4.9	−3.1
Locomotives	20.48	−.7	−21.8
Shipbuilding	22.62	+7.4	−13.2
Rubber products:			
Rubber tires and inner tubes	17.67	+2.6	−19.6
Rubber boots and shoes	19.05	+1.5	+9.3
Rubber goods, other than boots, shoes, tires, and inner tubes	18.03	−.9	−13.1
Machinery, not including transportation equipment:			
Agricultural implements	14.72	−.8	−4.8
Electrical machinery, apparatus, and supplies	19.93	+1.2	−18.9
Engines, turbines, tractors, and water wheels	19.89	+4.7	+10.1
Cash registers, adding machines, and calculating machines	23.30	+.4	−11.0
Foundry and machine-shop products	16.18	+1.8	−22.4
Machine tools	18.45	+.3	−19.0
Textile machinery and parts	17.70	+5.0	−24.9
Typewriters and supplies	16.29	+12.1	−6.2
Radio	17.61	−3.8	−20.0
Railroad repair shops:			
Electric-railroad repair shops	26.07	+3.3	−13.3
Steam-railroad repair shops	22.76	+.8	−12.8

General Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

GENERAL index numbers of employment and pay-roll totals in manufacturing industries by months, from January, 1926, to December, 1932, together with average indexes for each of the years from 1926 to 1932, inclusive, are shown in the following table. In computing these general indexes, the index numbers of each of the separate industries are weighted according to their relative importance in the total. Preceding this table are two charts prepared from these general indexes showing the course of employment and pay rolls for each of the years 1926 to 1932, inclusive.


MANUFACTURING INDUSTRIES.
MONTHLY INDEXES 1926 - 1932.
MONTHLY AVERAGE 1926=100.
EMPLOYMENT.
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
1926
1927
1929
1928
1930
1931
1932
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

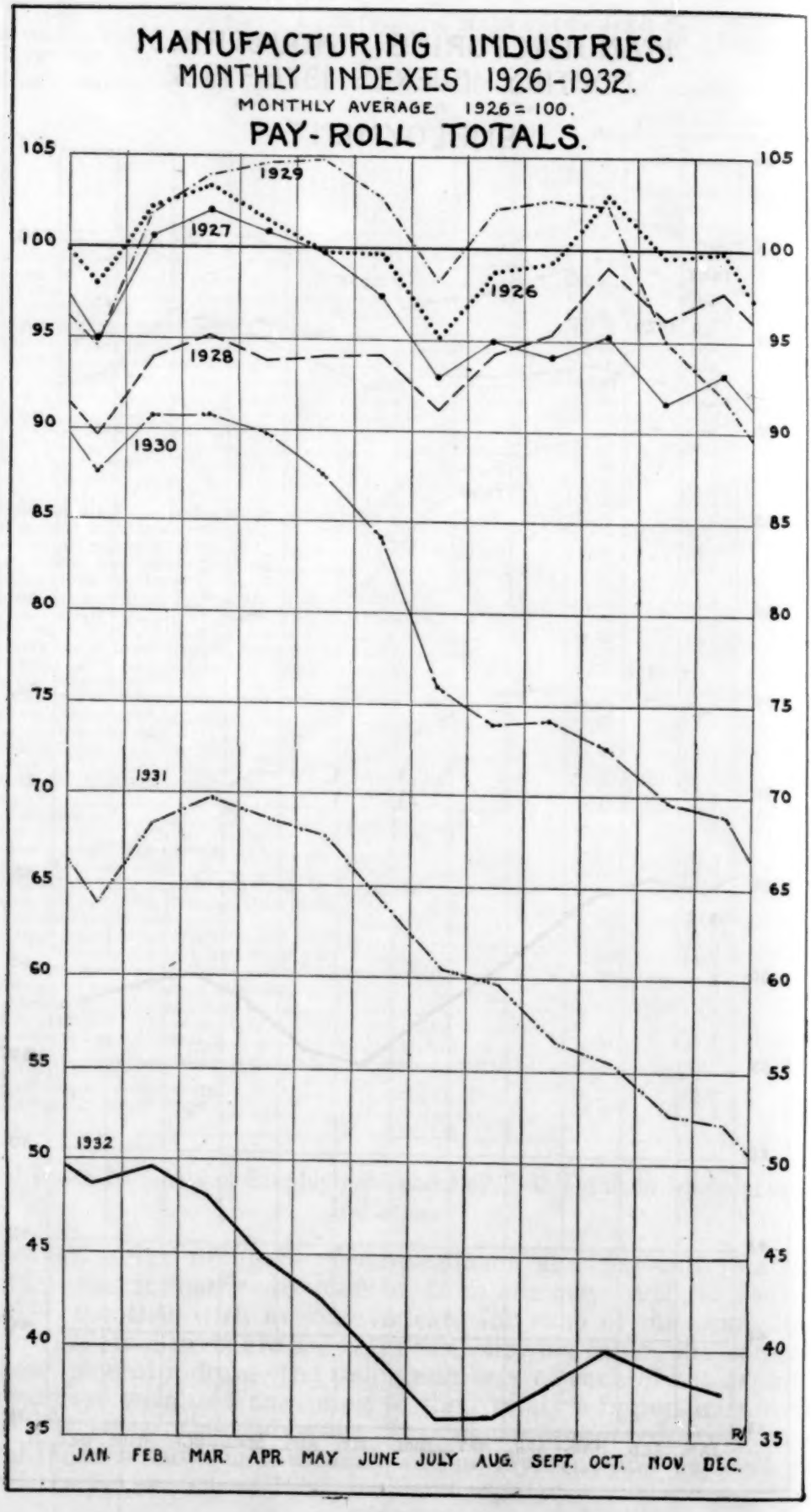

MANUFACTURING INDUSTRIES.
MONTHLY INDEXES 1926-1932.
MONTHLY AVERAGE 1926 = 100.
PAY-ROLL TOTALS.
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
1929
1927
1926
1928
1930
1931
1932
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

TABLE 3.—GENERAL INDEXES OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING INDUSTRIES, JANUARY, 1926, TO DECEMBER, 1932

[12-month average, 1926=100]

Month	Employment							Pay rolls						
	1926	1927	1928	1929	1930	1931	1932	1926	1927	1928	1929	1930	1931	1932
January	100.4	97.3	91.6	95.2	90.7	74.6	64.8	98.0	94.9	89.6	95.5	88.1	63.7	48.6
February	101.5	99.0	93.0	97.4	90.9	75.3	65.6	102.2	100.6	93.9	101.8	91.3	68.1	49.6
March	102.0	99.5	93.7	98.6	90.5	75.9	64.5	103.4	102.0	95.2	103.9	91.6	69.6	48.2
April	101.0	98.6	93.3	99.1	89.9	75.7	62.2	101.5	100.8	93.8	104.6	90.7	68.5	44.7
May	99.8	97.6	93.0	99.2	88.6	75.2	59.7	99.8	99.8	94.1	104.8	88.6	67.7	42.5
June	99.3	97.0	93.1	98.8	86.5	73.4	57.5	99.7	97.4	94.2	102.8	85.2	63.8	39.3
July	97.7	95.0	92.2	98.2	82.7	71.7	55.2	95.2	93.0	91.2	98.2	77.0	60.3	36.2
August	98.7	95.1	93.6	98.6	81.0	71.2	56.0	98.7	95.0	94.2	102.1	75.0	59.7	36.3
September	100.3	95.8	95.0	99.3	80.9	70.9	58.5	99.3	94.1	95.4	102.6	75.4	56.7	38.1
October	100.7	95.3	95.9	98.4	79.9	68.9	59.9	102.9	95.2	99.0	102.4	74.0	55.3	39.9
November	99.5	93.5	95.4	95.0	77.9	67.1	59.4	99.6	91.6	96.1	95.4	69.6	52.5	38.6
December	98.9	92.6	95.5	92.3	76.6	66.7	58.3	99.8	93.2	97.7	92.4	68.8	52.2	37.7
Average	**100.0**	**96.4**	**93.8**	**97.5**	**84.7**	**72.2**	**60.1**	**100.0**	**96.5**	**94.5**	**100.5**	**81.3**	**61.5**	**41.6**

Time Worked in Manufacturing Industries in December, 1932

REPORTS as to working time in December were received from 13,192 establishments in 89 manufacturing industries. Four per cent of these establishments were idle, 42 per cent operated on a full-time basis, and 54 per cent worked on a part-time schedule.

An average of 84 per cent of full-time operation in December was shown by reports received from all the operating establishments included in Table 4. The establishments working part time in December averaged 71 per cent of full-time operation.

A number of establishments supplying data concerning plant-operating time have reported full-time operations but have qualified the hours reported with a statement that, while the plant was operating full time, the work in the establishment was being shared and the employees were not working the full-time hours operated by the plant. Such establishments have been classified under full-time establishments in the following tabulation. The heading of the column concerning full-time plants has therefore been changed to read, "Per cent of establishments operating full time" instead of "Per cent of establishments in which employees worked full time."

TABLE 4.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN DECEMBER, 1932

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
Food and kindred products	**2,283**	**1**	**70**	**29**	**93**	**78**
Slaughtering and meat packing	171		77	23	97	86
Confectionery	237	1	58	41	91	77
Ice cream	292	3	55	42	92	81
Flour	358	1	68	31	93	77
Baking	655		84	16	96	76
Sugar refining, cane	14	21	36	43	86	74
Beet sugar	36		94	6	99	85
Beverages	275	1	56	44	88	72
Butter	245	1	73	26	95	81
Textiles and their products	**2,344**	**5**	**57**	**37**	**90**	**75**
Cotton goods	626	3	56	41	89	74
Hosiery and knit goods	377	3	66	31	93	78
Silk goods	218	6	65	28	92	73
Woolen and worsted goods	232	4	56	40	91	79
Carpets and rugs	26	12	31	58	77	65
Dyeing and finishing textiles	144	3	48	49	89	78
Clothing, men's	234	12	56	33	91	77
Shirts and collars	66	6	65	29	93	77
Clothing, women's	132	17	61	21	93	73
Millinery	91	9	43	48	88	78
Corsets and allied garments	21		57	43	90	77
Cotton small wares	102	1	42	57	85	75
Hats, fur-felt	22		59	41	87	68
Men's furnishings	53	4	60	36	90	71
Iron and steel and their products, not including machinery	**1,048**	**4**	**13**	**83**	**68**	**62**
Iron and steel	153	10	5	84	56	53
Cast-iron pipe	35	9	6	86	52	48
Structural and ornamental ironwork	135	2	7	90	70	67
Hardware	55		4	96	68	67
Steam fittings and steam and hot-water heating apparatus	84	6	5	89	57	55
Stoves	114	2	9	89	66	62
Bolts, nuts, washers, and rivets	60		18	82	69	62
Cutlery (not including silver and plated cutlery) and edge tools	105	3	26	71	75	66
Forgings, iron and steel	39		15	85	65	58
Plumbers' supplies	55		18	82	69	62
Tin cans and other tinware	52	2	48	50	89	78
Tools (not including edge tools, machine tools, files, or saws)	109	4	16	81	73	68
Wirework	52	2	13	85	74	69
Lumber and allied products	**1,072**	**5**	**22**	**72**	**73**	**65**
Lumber—						
Sawmills	449	7	11	82	67	62
Millwork	275	4	19	77	71	63
Furniture	330	5	39	56	82	69
Turpentine and rosin	18	6	39	56	90	84
Leather and its manufactures	**360**	**5**	**28**	**67**	**80**	**72**
Leather	124	2	41	57	87	79
Boots and shoes	236	7	21	72	76	69
Paper and printing	**1,512**	**1**	**38**	**61**	**85**	**76**
Paper and pulp	316	3	25	72	77	69
Paper boxes	258		22	78	82	77
Printing—						
Book and job	581	[1]	26	73	83	76
Newspapers and periodicals	357		81	19	98	89

[1] Less than one-half of 1 per cent.

TABLE 4.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN DECEMBER, 1932—Continued

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
Chemicals and allied products	**777**	**2**	**53**	**46**	**90**	**77**
Chemicals	88	2	59	39	90	76
Fertilizers	143	2	70	28	93	76
Petroleum refining	70	4	71	24	96	85
Cottonseed oil, cake, and meal	34	9	76	15	96	77
Druggists' preparations	25		52	48	94	88
Explosives	16			100	83	83
Paints and varnishes	308		39	61	85	76
Rayon	12		58	42	93	82
Soap	81		53	47	91	80
Stone, clay, and glass products	**689**	**20**	**30**	**49**	**78**	**64**
Cement	71	34	58	8	95	60
Brick, tile, and terra cotta	223	35	9	56	62	55
Pottery	91	9	19	73	72	65
Glass	123	5	67	28	93	76
Marble, granite, slate, and other stone products	181	13	27	61	79	69
Nonferrous metals and their products	**490**	**1**	**29**	**70**	**80**	**71**
Stamped and enameled ware	73	1	19	79	74	68
Brass, bronze, and copper products	145	1	21	78	78	72
Aluminum manufactures	22		23	77	81	75
Clocks, time-recording devices, and clock movements	20		35	65	77	65
Gas and electric fixtures, lamps, lanterns, and reflectors	45		29	71	84	77
Plated ware	47		23	77	78	71
Smelting and refining—copper, lead, and zinc	17	6	47	47	89	78
Jewelry	121	1	43	56	85	71
Tobacco manufactures	**200**	**5**	**29**	**67**	**82**	**75**
Chewing and smoking tobacco and snuff	32		31	69	82	74
Cigars and cigarettes	168	6	28	66	82	75
Transportation equipment	**256**	**3**	**35**	**62**	**84**	**75**
Automobiles	125	2	26	72	80	72
Aircraft	28	11	43	46	94	86
Cars, electric and steam railroad	26	12	12	77	73	69
Locomotives	9		11	89	76	73
Shipbuilding	68		59	41	93	83
Rubber products	**131**	**2**	**26**	**73**	**81**	**74**
Rubber tires and inner tubes	33		9	91	69	66
Rubber boots and shoes	8		38	63	91	85
Rubber goods, other than boots, shoes, tires, and inner tubes	90	2	31	67	85	77
Machinery, not including transportation equipment	**1,251**	**2**	**19**	**80**	**72**	**66**
Agriculture implements	53		19	81	74	69
Electrical machinery, apparatus, and supplies	192	1	18	81	77	72
Engines, turbines, tractors, and water wheels	64		16	84	73	68
Cash registers, adding machines, and calculating machines	37	3	32	65	84	75
Foundry and machine-shop products	730	2	18	80	69	62
Machine tools	108	2	13	85	73	69
Textile machinery and parts	29	3	17	79	76	71
Typewriters and supplies	13	8	23	69	73	63
Radio	25		52	48	90	80
Railroad repair shops	**779**	**1**	**46**	**53**	**90**	**81**
Electric-railroad repair shops	349		66	34	95	85
Steam-railroad repair shops	430	1	30	69	86	79
Total, 89 industries	**13,192**	**4**	**42**	**54**	**84**	**71**

Employment in Nonmanufacturing Industries in December, 1932

IN THE following table are presented employment and pay-roll data for 14 groups of nonmanufacturing industries, the totals of which also appear in the summary table of employment and pay-roll totals.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN NONMANUFACTURING ESTABLISHMENTS IN NOVEMBER AND DECEMBER, 1932, AND DECEMBER, 1931

Industrial group	Establishments reporting in both November and December, 1932	Employment			Pay-roll totals			Index numbers, December, 1932 (Average 1929=100)	
		Number on pay roll, December, 1932	Per cent of change		Amount of pay roll (1 week) December, 1932	Per cent of change		Employment	Pay-roll totals
			November to December, 1932	December, 1931, to December, 1932		November to December, 1932	December, 1931, to December, 1932		
Anthracite mining	160	85,284	−0.5	−21.9	$2,235,194	+10.2	−28.3	62.3	56.2
Bituminous coal mining	1,202	175,050	+.9	−13.8	2,494,281	−.9	−27.9	70.0	37.7
Metalliferous mining	275	21,838	+4.2	−35.0	397,624	−.1	−45.5	33.3	18.7
Quarrying and nonmetallic mining	631	19,411	−14.4	−21.5	275,304	−18.7	−40.1	42.3	22.1
Crude petroleum producing	276	22,019	+1.2	−1.7	616,803	−1.7	−24.0	57.2	41.7
Telephone and telegraph	8,302	269,598	−.9	−10.0	7,082,328	−1.1	−20.7	74.8	73.5
Power and light	3,523	209,993	−.8	−13.2	6,140,082	−.1	−19.7	78.4	73.2
Electric-railroad and motor-bus operation and maintenance	503	133,006	−.5	−10.6	3,680,519	+.4	−20.4	71.4	61.9
Wholesale trade	2,822	73,076	−.8	−8.0	1,963,142	−1.1	−19.5	77.0	62.6
Retail trade	14,730	409,639	+16.5	−10.4	7,713,275	+10.1	−21.8	95.2	73.6
Hotels	2,410	130,902	−1.4	−11.9	1,784,651	−1.6	−24.9	73.2	56.6
Canning and preserving	902	30,121	−33.2	−17.2	377,458	−25.4	−30.6	33.7	25.6
Laundries	965	57,407	−.4	−11.0	869,562	−.8	−24.2	75.9	58.7
Dyeing and cleaning	337	10,270	−3.6	−11.4	167,440	−7.4	−28.7	75.2	48.4

Indexes of Employment and Pay-Roll Totals for Nonmanufacturing Industries

INDEX numbers of employment and pay-roll totals for 14 nonmanufacturing industries are presented in the following table. The index numbers show the variation in employment and pay rolls in these groups, by months, from January, 1929, to December, 1932, with the exception of the laundries and the dyeing and cleaning groups, for which information over the entire period is not available. The bureau recently secured data concerning employment and pay rolls for the index base year 1929 from establishments in the laundries and the dyeing and cleaning groups, and has computed index numbers for these two groups, which now appear in this tabulation. The monthly collection of trend-of-employment statistics in these two groups did not begin until the later months of 1930 and, therefore, indexes for each month of the entire period are not available.

TABLE 2.—INDEXES OF EMPLOYMENT AND PAY ROLLS FOR **NONMANUFACTURING** INDUSTRIES, JANUARY TO DECEMBER, 1929, 1930, 1931, AND 1932

[12-month average, 1929=100]

Month	Anthracite mining								Bituminous coal mining							
	Employment				Pay rolls				Employment				Pay rolls			
	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932
January	105.7	102.1	90.6	76.2	100.7	105.8	89.3	61.5	106.4	102.5	93.9	80.8	106.1	101.4	73.3	47.0
February	106.0	106.9	89.5	71.2	122.1	121.5	101.9	57.3	107.7	102.4	91.5	77.4	116.6	102.1	68.3	47.0
March	98.0	82.6	82.0	73.7	90.8	78.5	71.3	61.2	106.8	98.6	88.8	75.2	108.6	86.4	65.2	46.8
April	100.7	84.1	85.2	70.1	88.3	75.0	75.2	72.0	100.2	94.4	85.9	65.5	89.2	81.7	58.6	33.9
May	103.7	93.8	80.3	66.9	99.0	98.8	76.1	58.0	96.6	90.4	82.4	62.6	91.9	77.5	54.4	30.7
June	92.9	90.8	76.1	53.0	80.7	94.3	66.7	37.4	94.7	88.4	78.4	60.5	90.0	75.6	52.4	27.3
July	83.2	91.6	65.1	44.5	64.7	84.0	53.7	34.5	94.1	88.0	76.4	58.6	85.6	68.9	50.4	24.4
August	91.1	80.2	67.3	49.2	78.4	78.8	56.4	41.4	95.7	89.2	77.0	59.4	92.8	71.1	50.6	26.4
September	101.9	93.8	80.0	55.8	103.8	91.6	64.9	47.0	97.2	90.5	80.4	62.4	98.6	74.9	53.6	30.2
October	106.1	99.0	86.8	63.9	133.9	117.2	91.1	66.7	98.8	91.8	81.3	67.0	106.8	79.4	56.2	37.8
November	104.0	97.2	83.5	62.7	100.5	98.0	79.5	51.0	101.0	92.5	81.1	69.4	106.0	79.1	54.6	38.0
December	107.1	99.1	79.8	62.3	137.2	100.0	78.4	56.2	101.4	92.5	81.2	70.0	108.2	77.7	52.3	37.7
Average	100.0	93.4	80.5	62.5	100.0	95.3	75.4	53.7	100.0	93.4	83.2	67.4	100.0	81.3	57.5	35.6

Month	Metalliferous mining								Quarrying and nonmetallic mining							
	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932
January	93.1	95.7	68.3	49.3	88.0	92.7	55.0	29.7	91.6	79.6	64.4	48.9	85.9	71.9	50.4	30.2
February	94.6	92.3	65.3	46.9	91.8	92.5	54.6	27.8	91.9	79.8	66.6	47.4	88.9	73.5	54.4	29.6
March	97.0	90.9	63.5	45.0	99.1	90.8	52.8	26.5	96.0	83.0	70.0	46.0	95.0	80.0	58.2	28.7
April	100.6	89.3	63.9	43.3	104.6	88.3	51.4	25.0	99.6	87.4	76.1	48.6	100.5	85.4	62.6	30.0
May	100.8	87.5	62.4	38.3	104.6	85.6	49.3	23.8	104.1	90.8	75.0	50.6	107.1	90.2	62.3	32.3
June	103.8	84.6	60.0	32.2	105.6	81.6	46.1	20.1	106.6	90.3	72.3	49.5	110.5	90.9	60.1	30.0
July	101.5	80.5	56.2	29.5	99.0	71.9	41.3	16.9	104.7	89.9	71.0	49.5	104.7	85.5	57.3	29.1
August	103.2	79.0	55.8	28.6	100.1	71.0	40.2	16.5	106.7	89.3	68.9	51.1	110.3	85.8	55.1	29.7
September	102.1	78.1	55.5	29.3	102.0	69.9	40.0	17.0	106.6	87.7	66.6	52.4	109.8	82.5	51.2	30.5
October	101.9	77.2	53.8	30.5	103.1	68.6	37.4	18.0	103.6	84.7	64.5	52.4	105.8	79.3	48.7	30.1
November	103.0	72.8	52.8	31.9	102.2	63.4	35.1	18.7	98.6	78.3	59.3	49.4	96.0	66.8	43.3	27.1
December	98.5	70.1	51.2	33.3	99.7	59.9	34.3	18.7	90.1	70.2	53.9	42.3	85.4	59.9	36.9	22.1
Average	100.0	83.2	59.1	36.5	100.0	78.0	44.8	21.6	100.0	84.3	67.4	49.0	100.0	79.3	53.4	29.1

Month	Crude petroleum producing								Telephone and telegraph							
	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932
January	90.0	92.7	74.8	54.9	93.1	94.0	71.5	46.5	94.3	101.6	90.5	83.0	94.5	105.1	96.3	89.1
February	90.4	90.8	73.2	54.4	99.0	88.6	70.0	46.9	95.3	100.2	89.2	82.0	93.0	101.9	94.8	89.6
March	89.6	89.3	72.2	51.4	97.4	91.3	73.2	43.2	96.5	99.4	88.6	81.7	98.7	105.8	97.9	88.2
April	97.6	86.8	69.8	54.9	96.7	86.6	66.3	44.5	97.8	98.9	88.1	81.2	98.3	103.4	95.0	83.4
May	93.9	89.8	67.8	54.5	92.4	85.4	64.7	47.1	100.4	99.7	87.4	80.6	99.4	103.2	94.1	82.8
June	104.1	90.2	65.0	54.2	99.4	87.1	62.7	44.8	101.5	99.8	86.9	79.9	100.0	103.4	95.0	82.1
July	106.0	89.9	65.3	55.4	100.7	88.5	59.2	44.6	102.6	100.0	86.6	79.1	104.1	106.6	93.3	79.6
August	113.2	87.7	62.4	57.4	104.7	86.0	56.3	42.9	103.7	98.8	85.9	78.1	101.8	102.5	92.3	79.1
September	108.9	85.0	61.2	56.2	110.7	84.0	55.2	41.9	102.5	96.8	85.0	77.4	100.4	102.2	92.1	75.9
October	107.9	85.2	60.4	56.8	100.1	82.6	54.4	42.5	101.9	94.5	84.1	76.2	105.1	100.9	91.6	75.7
November	101.1	83.6	57.6	56.5	103.8	80.0	52.0	42.4	101.9	93.0	83.5	75.5	101.2	97.9	89.7	74.3
December	97.0	77.4	58.2	57.2	102.1	77.2	54.9	41.7	101.8	91.6	83.1	74.8	103.9	101.3	92.7	73.5
Average	100.0	87.4	65.7	55.3	100.0	85.9	61.7	44.1	100.0	97.9	86.6	79.1	100.0	102.9	93.7	81.1

Month	Power and light								Electric-railroad and motor-bus operation and maintenance [1]							
	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932
January	92.9	99.6	99.2	89.3	91.7	99.7	98.6	88.4	99.7	97.1	86.9	79.5	98.7	97.8	85.6	[2] 75.4
February	92.6	98.8	97.8	87.2	91.8	100.4	99.7	86.0	99.1	95.1	86.6	78.9	97.6	95.7	87.1	[2] 74.8
March	92.8	99.7	96.7	85.5	94.5	102.1	102.4	85.4	97.0	94.4	86.4	77.6	98.0	95.4	88.1	[2] 73.6
April	95.9	100.7	97.1	84.8	95.5	102.6	97.6	82.4	98.5	95.2	86.8	78.0	99.5	97.1	86.6	[2] 71.8
May	98.4	103.4	97.6	84.0	98.1	104.5	98.7	84.2	100.4	95.2	85.9	76.9	101.0	96.0	85.1	[2] 72.2
June	100.7	104.6	97.2	83.2	100.4	107.8	98.3	80.5	101.2	94.8	85.3	76.5	101.7	97.0	84.8	[2] 70.2
July	103.2	105.9	96.7	82.3	102.3	106.7	97.4	78.7	102.2	95.3	85.6	75.6	101.9	95.6	83.3	[2] 66.4
August	105.4	106.4	95.9	81.5	103.8	106.6	96.2	76.7	102.2	92.9	84 8	74.1	102.0	92.1	81.9	[2] 63.8
September	105.5	105.2	94.7	81.0	106.6	106.1	94.3	74.7	101.4	91.8	84.0	73.5	101.5	90.5	81.2	[2] 62.5
October	105.7	104.8	92.7	79.9	106.0	105.6	93.2	74.4	100.5	91.0	82.7	72.3	100.0	88.9	79.0	[2] 61.5
November	104.7	103.4	91.3	79.1	104.1	103.7	93.3	73.2	99.4	89.3	81.5	71.8	98.4	87.7	79.7	[2] 61.7
December	102.5	103.2	90.3	78.4	105.8	106.3	91.2	73.2	98.3	88.8	79.9	71.4	99.8	88.6	77.8	61.9
Average	100.0	103.0	95.6	83.0	100.0	104.3	96.7	79.8	100.0	93.4	84.7	75.5	100.0	93.5	83.4	68.0

[1] Not including electric-railroad car building and repairing; see transportation equipment and railroad repair-shop groups, manufacturing industries, Table 1.

[2] Revision due to correction received from one company.

TABLE 2.—INDEXES OF EMPLOYMENT AND PAY ROLLS FOR NONMANUFACTURING INDUSTRIES, JANUARY TO DECEMBER, 1929, 1930, 1931, AND 1932—Continued

Month	Wholesale trade								Retail trade							
	Employment				Pay rolls				Employment				Pay rolls			
	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932
January	97.7	100.0	89.5	81.8	96.7	100.0	87.5	74.1	99.2	98.9	90.0	84.3	99.0	99.7	89.4	78.0
February	96.9	98.5	88.2	80.9	96.4	98.3	88.4	72.5	94.6	94.4	87.1	80.5	94.5	96.0	86.7	73.7
March	97.3	97.7	87.4	79.8	98.5	99.7	89.1	71.3	96.2	93.9	87.8	81.4	96.1	95.5	87.5	73.4
April	97.9	97.3	87.4	78.9	97.8	97.9	85.2	68.9	95.5	97.3	90.1	81.6	96.0	97.5	88.3	72.7
May	99.0	96.8	87.1	77.9	99.0	97.4	84.7	69.7	97.3	96.7	89.9	80.9	97.1	97.3	88.0	71.1
June	99.2	96.5	87.1	77.0	98.6	98.6	84.1	66.2	97.4	93.9	89.1	79.4	98.6	96.8	87.6	68.2
July	100.4	96.0	86.8	76.6	100.5	96.0	83.3	64.7	93.6	89.0	83.9	74.6	95.9	91.7	83.3	63.3
August	101.3	95.0	86.5	76.4	100.0	93.6	82.1	63.2	93.6	85.6	81.8	72.6	95.2	87.6	80.3	60.7
September	101.9	94.8	86.1	77.1	103.3	93.6	81.4	63.1	97.6	92.0	86.6	77.8	99.2	92.4	83.5	64.6
October	102.9	94.2	85.2	77.8	102.7	92.9	79.9	63.9	101.7	95.5	89.8	81.3	102.6	95.1	84.6	67.1
November	102.9	92.6	84.1	77.6	101.9	91.0	79.7	63.3	106.7	98.4	90.9	81.7	105.2	96.8	85.4	66.9
December	102.6	92.0	83.7	77.0	104.7	91.3	77.8	62.6	126.2	115.1	106.2	95.2	120.6	107.7	94.1	73.6
Average	100.0	96.0	86.6	78.2	100.0	95.9	83.6	67.0	100.0	95.9	89.4	80.9	100.0	96.2	86.6	69.4
	Hotels								Canning and preserving							
January	97.1	100.4	95.0	83.2	98.5	100.3	91.0	73.9	50.8	46.1	48.9	35.0	57.3	50.3	46.1	31.8
February	99.8	102.4	96.8	84.3	102.0	103.8	93.7	73.9	48.9	45.7	48.3	37.1	59.2	51.5	48.6	32.7
March	100.9	102.4	96.8	84.0	103.4	104.4	93.4	72.4	49.4	49.7	53.0	36.3	54.9	50.8	50.3	31.9
April	99.7	100.1	95.9	82.7	100.6	100.3	89.9	69.6	90.6	74.8	59.6	47.0	98.9	72.6	57.1	37.9
May	98.1	98.0	92.5	80.1	98.9	98.4	87.7	67.0	62.0	65.7	56.0	40.5	71.2	66.9	56.0	36.0
June	99.3	98.0	91.6	78.0	98.7	98.1	85.4	63.8	76.6	83.0	70.6	55.5	71.9	81.5	58.6	40.5
July	101.1	101.3	93.3	78.4	99.8	99.8	85.2	61.8	126.8	126.3	102.2	73.0	109.2	112.7	74.2	47.5
August	102.6	101.5	92.8	77.6	99.4	98.6	83.8	59.6	184.8	185.7	142.9	99.0	180.1	172.0	104.7	65.6
September	102.8	100.1	90.6	77.0	100.2	97.1	81.9	59.1	210.1	246.6	180.1	125.3	207.9	214.8	129.4	75.1
October	100.6	97.5	87.4	75.4	100.2	95.5	79.7	58.6	143.3	164.7	108.1	81.1	134.5	140.0	77.6	51.8
November	100.0	95.2	84.9	74.3	99.8	93.6	77.1	57.5	95.1	96.7	60.8	50.5	91.6	82.9	48.1	34.4
December	97.7	93.5	83.1	73.2	98.9	91.5	75.4	56.6	61.3	61.6	40.7	33.7	63.4	57.4	36.9	25.6
Average	100.0	99.2	91.7	79.0	100.0	98.5	85.4	64.5	100.0	103.9	80.9	59.5	100.0	96.1	65.6	42.6
	Laundries								Dyeing and cleaning							
January	-----	-----	90.5	84.7	-----	-----	86.6	76.4	-----	-----	88.9	82.1	-----	-----	77.7	65.8
February	-----	-----	90.0	82.9	-----	-----	85.6	73.3	-----	-----	87.4	80.5	-----	-----	75.1	62.2
March	-----	-----	89.5	82.0	-----	-----	85.6	71.6	-----	-----	88.0	80.6	-----	-----	75.6	61.7
April	-----	-----	90.5	82.0	-----	-----	86.8	71.4	-----	-----	95.7	83.3	-----	-----	86.3	65.9
May	-----	-----	90.3	81.4	-----	-----	86.5	70.6	-----	-----	96.7	84.5	-----	-----	86.6	67.3
June	-----	-----	91.0	81.0	-----	-----	87.1	68.6	-----	-----	99.0	85.1	-----	-----	89.1	65.8
July	-----	-----	91.8	80.3	-----	-----	87.4	66.3	-----	-----	98.6	82.4	-----	-----	86.2	60.0
August	-----	-----	90.2	78.9	-----	-----	84.6	63.9	-----	-----	93.5	79.5	-----	-----	80.0	56.3
September	-----	-----	89.3	78.6	-----	-----	84.1	62.9	-----	-----	95.3	83.3	-----	-----	82.6	61.0
October	-----	-----	88.1	77.5	-----	-----	81.8	61.2	-----	-----	94.2	82.3	-----	-----	81.4	58.8
November	-----	-----	86.2	76.2	-----	-----	78.9	59.1	-----	-----	90.1	78.0	-----	-----	74.7	52.3
December	-----	-----	85.3	75.9	-----	-----	77.4	58.7	-----	-----	84.9	75.2	-----	-----	67.9	48.4
Average	100.0	-----	89.4	80.1	100.0	-----	84.4	67.0	100.0	-----	92.7	81.4	100.0	-----	80.3	60.5

Average Man-Hours Worked and Average Hourly Earnings

IN THE following tables the bureau presents a tabulation of man-hours worked per week and average hourly earnings, based on reports supplied by identical establishments in November and December, 1932, in 15 industrial groups and 73 manufacturing industries. Man-hour data for the building construction group and for the insurance, real estate, banking, and brokerage groups are not available, and data for several of the 89 manufacturing industries surveyed monthly are omitted from these tables due to lack of adequate information.

The total number of establishments supplying man-hour data in these 15 industrial groups represents approximately 50 per cent of the establishments supplying monthly employment data.

The tabulations are based on reports supplying actual man-hours worked and do not include nominal man-hour totals, obtained by multiplying the total number of employees in the establishment by the plant operating time.

Table 1 shows the average hours worked per employee per week and average hourly earnings in 15 industrial groups and for all groups combined. The average hours per week and average hourly earnings for the combined total of the 15 industrial groups are weighted averages, wherein the average man-hours and average hourly earnings in each industrial group are multiplied by the total number of employees in the group in the current month and the sum of these products divided by the total number of employees in the combined 15 industrial groups.

In presenting information for the separate manufacturing industries, shown in Table 2, data are published for only those industries in which the available man-hour information covers 20 per cent or more of the total number of employees in the industry at the present time. The average man-hours and hourly earnings for the combined 89 manufacturing industries have been weighted in the same manner as the averages for all industrial groups combined, Table 1.

Per capita weekly earnings, computed by multiplying the average man-hours worked per week by the average hourly earnings shown in the following table, are not identical to the per capita weekly earnings appearing elsewhere in this trend-of-employment compilation. As already noted, the basic information upon which these average weekly man-hours and average hourly earnings are computed covers approximately 50 per cent of the establishments reporting in these groups while the per capita weekly earnings for each of the separate manufacturing industries and 17 industrial groups are obtained by dividing the total weekly earnings in all establishments reporting by the total number of employees in those establishments, which includes both full-time and part-time workers.

TABLE 1.--AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN 15 INDUSTRIAL GROUPS, NOVEMBER AND DECEMBER, 1932

Industrial group	Average hours per week		Average hourly earnings	
	November, 1932	December, 1932	November, 1932	December, 1932
	Hours	*Hours*	*Cents*	*Cents*
Manufacturing	38.4	38.2	43.6	43.3
Anthracite mining	28.8	31.8	81.8	82.1
Bituminous coal mining	30.4	30.4	47.9	47.6
Metalliferous mining	40.6	40.3	47.2	46.6
Quarrying and nonmetallic mining	35.7	33.6	42.2	42.5
Crude petroleum producing	47.3	44.9	61.8	63.6
Telephone and telegraph	38.5	38.7	69.4	68.9
Power and light	43.7	44.2	65.5	65.3
Electric-railroad and motor-bus operation and maintenance	45.4	46.3	59.5	59.2
Wholesale trade	46.8	46.8	56.1	56.1
Retail trade	44.7	44.5	43.4	41.3
Hotels	51.0	51.7	25.3	24.9
Canning and preserving	39.3	40.0	32.6	34.4
Laundries	42.4	42.2	35.2	35.1
Dyeing and cleaning	44.2	43.3	38.6	37.6
Total	41.7	41.6	46.4	45.5

TABLE 2.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS, IN SELECTED MANUFACTURING INDUSTRIES, NOVEMBER AND DECEMBER, 1932

Industry	Average hours per week		Average hourly earnings	
	November, 1932	December, 1932	November, 1932	December, 1932
	Hours	*Hours*	*Cents*	*Cents*
Food and kindred products:				
Slaughtering and meat packing	44.7	45.9	45.2	44.7
Confectionery	41.6	43.0	33.7	33.5
Ice cream	49.0	47.6	51.7	52.2
Flour	46.8	46.2	43.7	43.9
Baking	46.1	45.5	43.6	43.4
Sugar refining, cane	47.5	50.2	45.1	42.2
Beet sugar	50.5	35.7	36.7	38.0
Beverages	39.0	40.5	60.3	59.7
Textiles and their products:				
Cotton goods	46.4	45.8	22.7	22.3
Hosiery and knit goods	47.0	45.1	31.3	31.0
Silk goods	40.3	41.1	31.5	30.8
Woolen and worsted goods	41.9	43.9	36.0	36.0
Carpets and rugs	33.7	32.9	41.1	42.4
Dyeing and finishing textiles	44.3	45.0	39.7	39.1
Cotton small wares	40.9	40.9	35.9	35.7
Iron and steel and their products, not including machinery:				
Iron and steel	25.8	24.9	48.8	48.8
Cast-iron pipe	26.7	28.4	43.6	44.8
Structural and ornamental ironwork	33.2	31.6	49.9	47.7
Hardware	28.7	31.0	46.1	45.1
Steam fittings and steam and hot-water heating apparatus	31.7	30.3	50.8	50.9
Stoves	35.3	28.4	46.6	47.7
Bolts, nuts, washers, and rivets	33.4	32.2	44.3	44.6
Cutlery (not including silver and plated cutlery) and edge tools	35.7	35.8	51.2	50.4
Forgings, iron and steel	31.7	33.0	47.8	46.9
Plumbers' supplies	33.5	27.9	49.8	47.4
Tin cans and other tinware	40.1	41.9	40.3	40.7
Tools (not including edge tools, machine tools, files, or saws)	33.1	32.8	47.1	46.7
Lumber and allied products:				
Lumber—				
Sawmills	37.7	34.5	31.3	30.3
Millwork	36.6	34.4	37.2	36.6
Furniture	37.4	35.5	34.5	35.3
Leather and its manufactures:				
Leather	43.3	43.1	40.4	39.8
Paper:				
Paper and pulp	41.1	39.4	43.3	43.2
Paper boxes	43.1	41.2	40.5	40.9
Printing—				
Book and job	36.9	37.5	66.3	65.7
Newspapers and periodicals	42.3	42.3	76.2	76.1
Chemicals and allied products:				
Chemicals	41.3	40.9	52.1	51.7
Fertilizers	41.8	44.3	30.7	30.4
Petroleum refining	39.3	39.3	63.8	63.6
Druggists' preparations	40.7	41.6	44.7	44.6
Explosives	39.9	37.9	55.7	55.9
Paints and varnishes	40.2	39.7	53.1	52.6
Rayon	45.6	46.1	37.9	37.6
Soap	42.5	41.0	42.1	43.6
Stone, clay, and glass products:				
Cement	39.6	34.8	41.1	43.1
Brick, tile, and terra cotta	30.1	29.5	35.2	36.0
Pottery	39.7	38.1	39.5	40.5
Glass	37.2	35.4	45.7	43.9
Marble, granite, slate, and other stone products	28.9	29.8	58.5	57.9
Nonferrous metals and their products:				
Stamped and enameled ware	39.7	37.5	38.8	37.9
Brass, bronze, and copper products	33.6	32.1	46.0	45.7
Clocks, time-recording devices, and clock movements	39.7	40.4	43.1	42.3
Plated ware	38.0	35.1	49.2	46.3
Smelting and refining—copper, lead, and zinc	32.4	31.9	48.6	48.1
Jewelry	34.7	33.9	50.0	52.7
Tobacco manufactures:				
Chewing and smoking tobacco and snuff	39.4	40.5	32.8	32.7
Cigars and cigarettes	39.0	40.6	30.9	31.3
Transportation equipment:				
Automobiles	31.3	34.1	60.4	58.4
Aircraft	44.7	46.1	68.0	67.2
Locomotives	27.3	27.7	57.3	46.5
Shipbuilding	29.6	33.4	63.4	60.6
Rubber products:				
Rubber tires and inner tubes	29.3	29.7	58.5	59.0
Rubber goods, other than boots, shoes, tires, and inner tubes	37.2	38.4	45.1	42.9

TABLE 2.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS, IN SELECTED MANUFACTURING INDUSTRIES, NOVEMBER AND DECEMBER, 1932—Continued

Industry	Average hours per week		Average hourly earnings	
	November, 1932	December, 1932	November, 1932	December, 1932
Machinery, not including transportation equipment:	*Hours*	*Hours*	*Cents*	*Cents*
Agricultural implements	29.7	29.6	48.2	48.9
Electrical machinery, apparatus, and supplies	31.3	31.0	57.4	57.7
Engines, turbines, tractors, and water wheels	31.4	33.0	56.5	56.2
Cash registers, adding machines, and calculating machines	34.4	34.5	67.1	67.4
Foundry and machine shop products	29.0	29.8	52.7	52.0
Machine tools	31.3	31.4	56.9	56.5
Textile machinery and parts	29.3	31.1	58.5	58.4
Typewriters and supplies	28.9	35.1	48.1	47.5
Radio	37.2	36.0	44.1	43.6
Railroad repair shops:				
Electric railroad	43.0	45.0	57.5	57.5
Steam railroad	35.9	36.1	62.7	62.2

Employment in Building Construction in December, 1932

THERE was a decrease of 15.6 per cent in employment in the building construction industry in December, 1932, as compared with November, 1932, and pay-roll totals decreased 20.7 per cent over the month interval.

The per cents of change of employment and pay-roll totals in December, 1932, as compared with November, 1932, are based on returns made by 10,090 firms employing in December 66,836 workers in the various trades in the building construction industry. These reports cover building operations in various localities in 34 States and the District of Columbia.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE **BUILDING CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, NOVEMBER AND DECEMBER, 1932

Locality	Number of firms reporting	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		Nov. 15	Dec. 15		Nov. 15	Dec. 15	
Alabama: Birmingham	67	528	422	−20.1	$7,067	$4,660	−34.1
California:							
Los Angeles [1]	24	799	878	+9.9	16,288	16,307	+.1
San Francisco-Oakland [1]	25	780	604	−22.6	15,783	12,485	−20.9
Other reporting localities [1]	20	522	380	−27.2	11,835	8,065	−31.9
Colorado: Denver	186	702	567	−19.2	14,230	11,868	−16.6
Connecticut:							
Bridgeport	118	548	444	−19.0	11,612	10,456	−10.0
Hartford	209	1,002	910	−9.2	23,473	20,159	−14.1
New Haven	176	1,095	986	−10.0	26,578	25,239	−5.0
Delaware: Wilmington	111	1,137	1,000	−12.0	22,114	20,611	−6.8
District of Columbia	533	7,476	7,336	−1.9	208,064	192,232	−7.6
Florida:							
Jacksonville	46	250	320	+28.0	3,972	5,029	+26.6
Miami	71	546	511	−6.4	10,281	11,212	+9.1
Georgia: Atlanta	126	1,210	1,046	−13.6	19,633	13,148	−33.0
Illinois:							
Chicago [1]	132	1,180	887	−24.8	34,840	22,026	−36.8
Other reporting localities [1]	71	381	283	−25.7	8,590	4,964	−42.2
Indiana:							
Evansville	46	250	192	−23.2	4,095	3,129	−23.6
Fort Wayne	95	356	255	−28.4	5,891	3,621	−38.5
Indianapolis	163	716	649	−9.4	15,802	13,672	−13.5
South Bend	41	170	180	+5.9	3,110	3,032	−2.5

[1] Data supplied by cooperating State bureaus.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE **BUILDING CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, NOVEMBER AND DECEMBER, 1932—Continued

Locality	Number of firms reporting	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		Nov. 15	Dec. 15		Nov. 15	Dec. 15	
Iowa: Des Moines	104	846	534	−36.9	$14,007	$10,224	−27.0
Kansas: Wichita	67	464	419	−9.7	9,286	7,166	−22.8
Kentucky: Louisville	121	767	606	−21.0	12,894	9,475	−26.5
Louisiana: New Orleans	129	1,259	1,239	−1.6	21,037	19,124	−9.1
Maine: Portland	98	498	418	−16.1	10,452	8,821	−15.6
Maryland: Baltimore [1]	115	914	849	−7.1	16,339	14,454	−11.5
Massachusetts: All reporting localities [1]	740	5,651	4,526	−19.9	141,923	109,647	−22.7
Michigan:							
Detroit	413	2,807	2,283	−18.7	62,461	47,006	−24.7
Flint	45	159	109	−31.4	2,528	1,820	−28.0
Grand Rapids	97	490	462	−5.7	9,532	9,181	−3.7
Minnesota:							
Duluth	53	326	299	−8.3	6,318	5,805	−8.1
Minneapolis	225	1,240	1,015	−18.1	25,827	20,665	−20.0
St. Paul	151	797	554	−30.5	18,662	10,449	−44.0
Missouri:							
Kansas City [2]	241	1,383	987	−28.6	28,377	21,925	−22.7
St. Louis	453	2,501	1,932	−22.8	65,742	47,991	−27.0
Nebraska: Omaha	137	625	521	−16.6	12,966	10,659	−17.8
New York:							
New York City [1]	331	9,383	7,134	−24.0	350,746	247,831	−29.3
Other reporting localities [1]	179	4,147	3,583	−13.6	122,801	91,284	−25.7
North Carolina: Charlotte	39	199	171	−14.1	2,711	2,461	−9.2
Ohio:							
Akron	74	288	248	−13.9	4,334	3,619	−16.5
Cincinnati [3]	474	2,672	2,199	−17.7	62,618	48,768	−22.1
Cleveland	465	2,601	2,249	−13.5	64,843	55,896	−13.8
Dayton	113	394	464	+17.8	7,765	7,944	+2.3
Youngstown	65	274	193	−29.6	4,661	3,156	−32.3
Oklahoma:							
Oklahoma City	81	340	265	−22.1	5,019	4,442	−11.5
Tulsa	42	156	147	−5.8	2,388	2,249	−5.8
Oregon: Portland	176	760	549	−27.8	16,068	9,812	−38.9
Pennsylvania: [4]							
Erie area [1]	23	201	90	−55.2	3,432	1,985	−42.2
Philadelphia area [1]	435	3,778	3,260	−13.7	82,539	65,491	−20.7
Pittsburgh area [1]	238	1,500	1,197	−20.2	37,186	29,596	−20.4
Reading-Lebanon area [1]	42	273	196	−28.2	4,724	3,631	−23.1
Scranton area [1]	36	193	150	−22.3	3,909	3,114	−20.3
Other reporting areas [1]	291	2,098	1,689	−19.5	39,679	31,262	−21.2
Rhode Island: Providence	230	1,353	1,181	−12.7	30,084	25,895	−13.9
Tennessee:							
Chattanooga	35	268	304	+13.4	3,882	3,748	−3.5
Knoxville	48	547	450	−17.7	5,966	4,963	−16.8
Memphis	90	352	381	+8.2	6,404	6,401	[5]
Nashville	67	663	631	−4.8	10,082	8,824	−12.5
Texas:							
Dallas	145	982	724	−26.3	14,856	10,742	−27.7
El Paso	20	142	212	+49.3	1,934	2,743	+41.8
Houston	129	741	580	−21.7	13,013	8,785	−32.5
San Antonio	94	546	467	−14.5	8,244	6,622	−19.7
Utah: Salt Lake City	79	297	276	−7.1	6,322	5,285	−16.4
Virginia:							
Norfolk-Portsmouth	88	465	535	+15.1	7,871	8,258	+4.9
Richmond	137	900	807	−10.3	16,984	14,490	−14.7
Washington:							
Seattle	149	769	593	−22.9	16,738	12,817	−23.4
Spokane	50	167	140	−16.2	3,049	2,253	−26.1
Tacoma	74	83	107	+28.9	1,231	1,869	+51.8
West Virginia: Wheeling	41	130	122	−6.2	2,397	2,083	−13.1
Wisconsin: All reporting localities [1]	61	1,126	939	−16.6	21,944	18,446	−15.9
Total, all localities	10,090	79,163	66,836	−15.6	1,908,033	1,513,092	−20.7

[1] Data supplied by cooperating State bureaus.
[2] Includes both Kansas City, Mo., and Kansas City, Kans.
[3] Includes Covington and Newport, Ky.
[4] Each separate area includes from 2 to 8 counties.
[5] No change.

Trend of Employment in December, 1932, by States

IN THE following table are shown the fluctuations in employment and pay-roll totals in December, as compared with November, 1932, in certain industrial groups by States. These tabulations have been prepared from data secured directly from reporting establishments and from information supplied by cooperating State agencies. The combined total of all groups does not include building-construction data, information concerning which is published elsewhere in a separate tabulation by city and State totals. In addition to the combined total of all groups, the trend of employment and pay rolls in the manufacturing, public utility, hotel, wholesale trade, retail trade, bituminous coal mining, crude-petroleum producing, quarrying and nonmetallic mining, metalliferous mining, laundries, and dyeing and cleaning groups is presented. In this State compilation, the totals of the telephone and telegraph, power and light, and electric-railroad operation groups have been combined and are presented as one group—public utilities. Due to the extreme seasonal fluctuations in the canning and preserving industry, and the fact that during certain months the activity in this industry in a number of States is negligible, data for this industry are not presented separately. The number of employees and the amount of weekly pay roll in November and December as reported by identical establishments in this industry are included, however, in the combined total of "All groups."

The per cents of change shown in the accompanying tables, unless otherwise noted, are unweighted per cents of change; that is, the industries included in the groups and the groups comprising the total of all groups, have not been weighted according to their relative importance in the combined totals.

As the anthracite mining industry is confined entirely to the State of Pennsylvania, the changes reported in this industry in the summary table are the fluctuations in this industry by State total.

When the identity of any reporting company would be disclosed by the publication of a State total for any industrial group, figures for the group do not appear in the separate industrial-group tabulation, but are included in the State totals for "All groups." Data are not presented for any industrial group when the representation in the State covers less than three establishments.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN NOVEMBER AND DECEMBER, 1932, BY STATES

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Total—all groups					Manufacturing				
	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change
Alabama	459	48,734	+0.5	$525,405	−0.9	202	33,638	+0.4	$341,618	−2.0
Arkansas	[1] *446*	*14,577*	*−1.9*	*204,533*	*−5.1*	*181*	*9,216*	*−1.7*	*114,534*	*−5.2*
Arizona	376	8,145	+3.1	163,770	+2.5	57	1,876	−.4	39,651	+4.3
California	[2] *1,912*	*233,560*	*+.1*	*5,503,839*	*−.7*	*1,115*	*112,297*	*−5.9*	*2,539,668*	*−4.1*
Colorado	741	31,445	−.6	596,879	−6.8	121	12,490	−7.7	196,181	−23.2
Connecticut	1,042	132,351	−1.9	2,363,169	−2.6	641	112,701	−2.5	1,874,762	−3.4
Delaware	125	8,947	+3.0	185,680	+4.9	52	6,726	+4.9	136,698	+7.0
District of Columbia	[3] 629	33,196	+7.1	781,325	+3.1	49	3,483	−.1	117,738	−1.1
Florida	521	22,869	+3.0	372,721	−.8	125	13,557	−5.6	191,348	−8.4
Georgia	632	69,181	−2.3	834,600	−2.2	303	56,658	−.7	577,619	−2.4
Idaho	201	9,066	−4.9	152,349	−14.2	43	5,334	−8.4	80,754	−19.6
Illinois	[3] *1,462*	*255,238*	*−2.2*	*5,168,610*	*−1.2*	*977*	*153,889*	*−3.3*	*2,641,294*	*−2.1*
Indiana	1,171	110,666	−1.2	1,992,563	+.9	571	81,279	−2.0	1,431,390	+.6
Iowa	1,133	41,875	+([4])	797,416	+1.8	436	22,758	+.5	421,149	+5.4
Kansas	[5] *1,078*	*65,508*	*−1.1*	*1,454,255*	*−2.9*	*448*	*24,269*	*−.4*	*504,852*	*−.4*
Kentucky	788	54,757	−4.9	816,786	−9.6	204	18,843	−9.0	284,591	−13.0
Louisiana	486	28,994	−3.3	415,401	−3.8	210	17,605	−4.0	222,355	−7.9
Maine	548	37,476	−3.6	599,150	−1.7	189	31,230	−1.5	465,301	−.6
Maryland	[3] *817*	*82,677*	*+3.5*	*1,506,341*	*+2.6*	*450*	*48,852*	[6] *−.5*	*821,363*	[6] *−1.3*
Massachusetts	[7] *7,708*	*329,983*	*−1.3*	*6,808,879*	*−1.2*	*1,101*	*152,032*	*−3.8*	*2,586,127*	*−3.8*
Michigan	1,384	233,264	+5.9	4,697,993	+6.2	*383*	*168,605*	*+8.1*	*3,340,372*	*+3.2*
Minnesota	998	59,963	−2.4	1,226,755	−4.0	279	29,762	−4.6	582,503	−6.5
Mississippi	378	8,130	−1.2	101,370	−6.2	63	4,473	−.9	47,470	−8.7
Missouri	1,118	101,851	+1.3	2,029,572	+1.6	518	56,827	+1.4	1,004,988	+2.6
Montana	320	8,805	−.2	209,498	−.7	48	3,122	−5.0	59,792	−5.4
Nebraska	601	21,730	−5.4	440,520	−8.2	128	11,200	−9.5	213,686	−14.5
Nevada	122	1,202	−.2	30,511	−5.6	22	227	−7.3	5,920	−11.2
New Hampshire	446	32,956	+.5	512,260	+.9	185	29,298	+.6	425,203	+.7
New Jersey	1,422	176,417	+.9	3,812,479	+1.2	[8] *702*	*159,372*	*−.4*	*3,306,444*	*−.1*
New Mexico	179	4,690	−.4	81,111	+.8	24	333	−19.4	5,586	−11.5
New York	4,306	484,242	+.6	11,100,922	−.3	[9] *1,671*	*299,825*	*−3.1*	*6,484,728*	*−3.6*
North Carolina	874	107,903	−2.2	1,187,587	−5.1	533	103,143	−2.4	1,116,810	−5.4
North Dakota	306	3,536	−6.3	80,712	−1.4	57	1,027	−3.1	24,910	−3.6
Ohio	4,716	351,645	+1.2	6,283,857	−.2	1,919	250,717	−.4	4,301,777	−1.5
Oklahoma	686	26,067	−.3	520,481	−2.8	120	8,606	−1.0	162,502	−2.5
Oregon	693	24,994	−8.4	462,064	−8.8	155	14,041	−3.0	217,717	−11.0
Pennsylvania	4,072	580,985	−1.3	10,362,642	+.2	*1,743*	*317,597*	*−2.8*	*4,651,669*	*−4.0*
Rhode Island	894	54,113	−1.5	962,432	+2.6	268	42,573	−2.6	704,798	+3.7
South Carolina	321	49,548	+1.5	475,418	+.6	177	45,789	+1.4	422,008	+.5
South Dakota	229	5,655	+.3	131,836	+5.4	49	2,271	+1.6	44,302	+23.0
Tennessee	715	59,707	−.6	798,852	−2.9	268	43,439	−1.9	550,510	−4.5
Texas	*721*	*53,338*	*+.4*	*1,180,996*	*−.9*	*366*	*29,459*	*−.2*	*574,619*	*−1.3*
Utah	332	14,349	+1.2	275,215	−.7	83	5,848	+1.4	104,701	+3.0
Vermont	346	9,067	−1.0	166,094	−3.2	116	4,871	+.1	85,308	−3.5
Virginia	1,275	81,374	−.1	1,272,191	−.9	442	56,444	−.4	852,006	−2.1
Washington	1,176	48,686	−2.4	975,908	−3.7	252	22,485	−2.0	416,894	−4.4
West Virginia	745	79,660	−.8	1,268,113	−2.0	184	31,233	−1.5	536,967	−2.4
Wisconsin	[10] *1,087*	*120,994*	*−1.2*	*1,939,691*	*−6.5*	*806*	*91,384*	[6] *−1.5*	*1,361,254*	[6] *−5.7*
Wyoming	181	6,067	−3.6	142,773	−6.7	25	1,515	−12.2	37,722	−11.4

[1] Includes automobile dealers and garages, and sand, gravel, and building construction.
[2] Includes banks, insurance, and office employment.
[3] Includes building and contracting.
[4] Less than one-tenth of 1 per cent.
[5] Includes transportation, financial institutions, restaurants, and building construction.
[6] Weighted per cent of change.
[7] Includes construction, municipal, agricultural, and office employment, amusement and recreation, professional and transportation services.
[8] Includes laundries.
[9] Includes laundering and cleaning.
[10] Includes construction, but does not include hotels and restaurants.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN NOVEMBER AND DECEMBER, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Wholesale trade					Retail trade				
	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change
Alabama	16	851	−0.4	$22,038	−3.5	31	2,511	+7.2	$33,192	+1.2
Arkansas	*17*	*434*	*−1.1*	*11,988*	*−1.6*	*138*	*1,862*	−.3	*31,802*	−(4)
Arizona	22	193	(11)	5,170	(11)	191	1,775	+16.0	26,669	+3.9
California	*80*	*4,793*	*−.2*	*141,669*	*+.2*	*114*	*32,732*	*+29.8*	*602,039*	*+18.2*
Colorado	30	826	−1.0	22,587	−2.5	273	4,853	+20.0	94,387	+7.4
Connecticut	56	1,233	+.5	34,678	−1.9	126	5,775	+10.4	107,138	+5.2
Delaware	9	168	+1.2	4,673	−1.1	11	253	+39.0	3,208	+24.6
District of Columbia	31	412	−1.7	13,058	−2.2	400	13,292	+21.0	259,396	+11.2
Florida	51	836	+1.5	19,684	+.4	82	1,133	+21.4	21,844	+16.8
Georgia	33	410	−.5	11,241	+.3	32	2,315	+10.7	35,150	+5.8
Idaho	7	108	−3.6	3,050	−2.8	69	763	+9.0	13,230	+.8
Illinois	*13*	*806*	(11)	*19,806*	*−1.3*	*66*	*18,539*	*+3.0*	*422,578*	*+3.5*
Indiana	62	1,162	−.9	30,141	−2.2	163	7,150	+22.2	117,891	+14.1
Iowa	37	1,024	−3.5	26,691	−2.6	127	3,660	+5.8	57,974	−.5
Kansas	*67*	*1,824*	*−5.7*	*42,996*	*−8.5*	*335*	*6,897*	*+9.9*	*114,853*	*+2.1*
Kentucky	19	379	−5.2	7,280	−3.0	29	1,514	+2.3	23,547	+1.7
Louisiana	22	602	+.7	12,987	+.8	54	3,796	+8.9	54,948	+11.3
Maine	17	412	+.2	9,818	+1.2	75	1,285	+12.9	22,092	+9.7
Maryland	*33*	*740*	*−.5*	*16,077*	*−.6*	*35*	*7,180*	*+28.6*	*116,002*	*+27.6*
Massachusetts	*654*	*13,486*	*−2.8*	*357,374*	*−2.3*	*3,923*	*62,999*	*+9.4*	*1,253,936*	*+6.3*
Michigan	61	1,598	−.7	45,903	−2.0	178	13,717	+26.4	241,364	+18.8
Minnesota	63	4,189	−1.2	110,939	−2.9	282	8,156	+6.9	138,345	+.5
Mississippi	5	117	+.9	2,379	−.1	58	536	+11.0	5,716	+4.5
Missouri	55	4,613	−.6	116,103	−1.8	136	7,310	+20.6	136,097	+10.4
Montana	11	194	+.5	5,660	+.4	87	983	+11.3	19,201	+.5
Nebraska	34	876	−.6	24,434	−2.1	86	1,675	+12.8	29,405	+6.8
Nevada	7	78	−16.1	2,992	−10.1	29	222	(11)	5,511	−2.9
New Hampshire	17	200	+2.6	5,101	−1.0	58	731	+18.1	11,004	+9.6
New Jersey	26	527	+1.7	16,308	−.1	409	10,059	+27.9	204,039	+19.3
New Mexico	6	70	−5.4	2,723	+9.8	50	296	+12.1	5,737	+1.4
New York	322	7,793	+.6	240,682	+.8	1,199	68,912	+20.5	1,447,695	+12.6
North Carolina	18	238	−3.6	5,962	−1.5	174	629	−.6	10,860	−3.4
North Dakota	13	203	−1.5	5,970	+.9	38	490	+13.2	7,138	+5.2
Ohio	230	4,888	−.4	128,548	−.3	1,595	36,729	+18.5	649,918	+12.1
Oklahoma	52	892	−1.4	23,075	−2.1	104	1,997	+7.7	32,587	+.3
Oregon	50	1,165	−1.9	31,662	−3.3	223	2,239	+3.9	42,996	+5.3
Pennsylvania	135	3,633	−.1	98,992	−.7	311	30,337	+14.4	573,334	+11.6
Rhode Island	43	1,072	+3.4	26,344	+2.5	506	5,471	+10.1	108,108	+5.0
South Carolina	16	244	+1.2	5,169	−.4	15	589	+17.3	4,964	+13.4
South Dakota	10	122	−3.9	3,592	−1.6	15	190	−5.0	2,509	+.1
Tennessee	36	642	(11)	13,842	−1.6	56	4,103	+14.2	63,957	+12.1
Texas	*98*	*2,070*	*+3.6*	*54,523*	*+1.0*	*62*	*5,202*	*+7.3*	*94,524*	*+2.0*
Utah	15	467	−.6	11,299	+.1	86	751	+6.8	14,484	+3.5
Vermont	5	109	−1.8	2,877	−1.2	38	532	+20.9	8,091	+16.6
Virginia	49	1,054	+.2	25,207	−2.4	477	5,614	+17.0	96,674	+12.5
Washington	96	2,199	−1.3	59,185	−1.7	473	7,888	+21.3	139,711	+9.7
West Virginia	33	582	+.9	15,097	−2.1	50	1,213	+23.8	17,522	+7.6
Wisconsin	*46*	*1,968*	*−1.8*	*47,210*	*−.7*	*57*	*10,593*	*+19.1*	*148,492*	*+12.1*
Wyoming	8	54	−1.8	1,702	−1.6	49	257	+1.6	6,633	+1.8

(4) Less than one-tenth of 1 per cent.

(11) No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN NOVEMBER AND DECEMBER, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Quarrying and nonmetallic mining					Metalliferous mining				
	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change
Alabama	9	523	−2.1	$5,209	−10.2	9	1,004	+2.2	$10,853	−1.9
Arkansas	9	497	+4.4	3,714	−26.1					
Arizona						16	2,318	+.7	49,831	+4.0
California	33	1,095	−7.7	20,477	−8.8	*25*	*1,409*	*−2.6*	*38,966*	−.7
Colorado	3	5	−54.5	48	−71.4	14	665	+.8	16,049	+4.2
Connecticut	9	103	−35.2	1,729	−34.4					
Delaware										
District of Columbia										
Florida	8	482	+4.3	5,818	+2.3					
Georgia	15	837	−1.8	9,821	+.6					
Idaho						11	1,956	−.8	37,881	−11.8
Illinois	27	357	−41.1	5,934	−43.3					
Indiana	34	538	−25.5	6,340	−28.6					
Iowa	18	250	−28.8	3,025	−48.7					
Kansas	*17*	*744*	*−.7*	*17,088*	*−.8*	*13*	*574*	*−.4*	*11,340*	*−.3*
Kentucky	26	815	−27.2	6,321	−18.2					
Louisiana	4	487	−8.1	4,692	−22.7					
Maine	8	109	−66.6	2,425	−65.7					
Maryland	*12*	*214*	*+2.9*	*2,911*	*+19.7*					
Massachusetts										
Michigan	23	471	−53.6	6,349	−57.3	37	4,450	+30.3	47,446	+25.7
Minnesota	7	79	−26.2	1,013	−38.4	33	1,117	−11.4	12,843	−25.9
Mississippi	4	65	−7.1	618	−22.7					
Missouri	13	185	−28.0	2,688	−15.7	13	1,027	+.1	19,841	+.4
Montana	4	14	(11)	235	+76.7	15	1,291	+8.6	36,762	+9.4
Nebraska										
Nevada						12	97	+5.4	2,449	−20.0
New Hampshire	12	171	+8.9	4,195	+9.8					
New Jersey	3	41	+105.0	1,313	+193.1					
New Mexico						5	829	−.2	15,858	+11.2
New York	48	1,463	−15.1	26,147	−17.3					
North Carolina	9	140	−22.7	1,007	−32.9					
North Dakota										
Ohio	66	1,624	−18.1	23,533	−29.5					
Oklahoma	4	59	−1.7	687	−9.0	30	1,275	−8.6	18,035	−12.5
Oregon						6	56	−5.1	946	−7.9
Pennsylvania	59	2,329	−8.0	22,057	−10.4					
Rhode Island										
South Carolina	5	56	−9.7	268	−28.5					
South Dakota	3	14	−30.1	201	−40.4					
Tennessee	19	1,043	+2.5	13,099	−1.7	4	204	+2.5	2,669	−1.7
Texas	*11*	*301*	*−6.8*	*6,407*	*−5.1*					
Utah						11	2,036	+1.4	38,237	−2.6
Vermont	36	1,953	−2.5	38,597	−5.1					
Virginia	15	846	−4.5	7,281	−16.1					
Washington	8	157	−19.1	2,802	−49.4					
West Virginia	8	320	+4.9	3,538	+8.8					
Wisconsin	*13*	*88*	*−6.4*	*955*	*−10.3*					
Wyoming										

[11] No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN NOVEMBER AND DECEMBER, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Bituminous coal mining					Crude petroleum producing				
	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change
Alabama	37	6,622	+0.1	$58,926	+8.9					
Arkansas	*5*	*298*	*−55.2*	*3,338*	*−16.4*	8	405	+7.4	$9,545	−2.0
Arizona										
California						40	4,292	+1.3	130,615	−1.0
Colorado	40	4,925	+3.2	93,726	+13.6					
Connecticut										
Delaware										
District of Columbia										
Florida										
Georgia										
Idaho										
Illinois	*28*	*5,409*	*+11.3*	*122,434*	*+20.8*					
Indiana	43	5,438	+2.8	113,264	+7.1	5	32	(11)	609	+1.7
Iowa	19	2,194	+2.4	47,277	+.1					
Kansas	*24*	*1,735*	*+.1*	*24,714*	*+.6*	35	1,604	(11)	36,631	−4.8
Kentucky	136	23,341	−1.8	296,485	−11.9	6	205	+1.0	3,885	+(4)
Louisiana						8	164	+4.5	4,517	+13.7
Maine										
Maryland	*14*	*1,454*	*−.2*	*14,420*	*+33.8*					
Massachusetts										
Michigan	3	839	−2.1	21,026	+17.3					
Minnesota										
Mississippi										
Missouri	18	1,388	+3.4	27,233	+9.1					
Montana	10	855	−1.3	25,848	+3.0	4	28	+12.0	726	+3.7
Nebraska										
Nevada										
New Hampshire										
New Jersey										
New Mexico	14	2,024	+1.1	31,432	−.8	5	51	+15.9	1,530	+8.9
New York						6	190	−2.1	4,649	−5.0
North Carolina										
North Dakota										
Ohio	61	9,377	+11.9	136,452	+12.5	6	44	+10.0	664	+3.6
Oklahoma	13	706	+9.0	12,620	−5.6	63	4,537	+1.0	111,314	−5.0
Oregon										
Pennsylvania	367	51,340	+(4)	623,563	−6.0	21	512	−2.1	12,076	−2.5
Rhode Island										
South Carolina										
South Dakota										
Tennessee	15	2,529	+.3	25,627	−1.7					
Texas						*3*	*7,109*	*+1.2*	*243,371*	*+.1*
Utah	15	2,043	+7.2	48,751	−2.6					
Vermont										
Virginia	36	8,844	+1.6	119,945	+3.2					
Washington	10	1,369	+1.6	33,713	+4.3					
West Virginia	257	38,316	−.9	517,107	−2.3	8	336	+4.0	7,826	+1.0
Wisconsin										
Wyoming	30	3,476	−.6	79,729	−6.7	6	61	−16.4	2,311	−3.4

[4] Less than one-tenth of 1 per cent.

[11] No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN NOVEMBER AND DECEMBER, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Public utilities					Hotels				
	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change
Alabama	123	1,911	−0.1	$38,792	−2.7	24	1,130	−4.3	$9,645	−4.2
Arkansas	*49*	*1,078*	*−17.7*	*26,571*	*−10.4*	*16*	*727*	*−4.6*	*7,430*	−4.4
Arizona	66	1,205	−1.6	31,056	−1.8	12	353	+7.3	5,176	+5.7
California	*51*	*47,094*	*−.3*	*1,267,688*	*−.9*	*199*	*9,098*	*+1.4*	*143,613*	−.8
Colorado	195	5,322	−1.0	138,333	+.8	29	1,149	−.7	16,187	−4.7
Connecticut	143	9,858	−.2	304,295	+.4	30	1,132	−2.2	14,752	−3.4
Delaware	28	1,091	−2.8	31,734	−.2	7	255	+.4	2,986	−1.6
District of Columbia	22	8,289	+.3	239,016	−.2	54	3,665	−1.8	56,952	+.5
Florida	185	4,176	−1.4	109,577	+.8	38	906	+28.3	9,773	+28.7
Georgia	186	6,741	−.4	181,577	−1.1	34	1,345	+6.6	11,103	+4.6
Idaho	56	664	−1.0	13,824	−2.9	14	211	−3.2	3,069	+1.0
Illinois	*66*	*66,436*	*−.7*	*1,794,905*	*−.3*	[12] *44*	*6,138*	*−2.3*	*96,396*	−2.6
Indiana	148	9,646	−1.0	229,688	−.9	56	2,495	−4.0	27,296	−5.9
Iowa	427	9,535	−1.1	214,282	−1.5	49	1,922	−5.5	19,063	−5.3
Kansas	*27*	*6,996*	*+.8*	*157,876*	*−1.5*	*37*	*869*	*−2.4*	*8,773*	−10.1
Kentucky	304	6,801	−2.8	162,030	−1.1	36	1,582	−1.6	16,679	−1.6
Louisiana	153	4,287	+2.0	94,658	−1.1	22	1,844	+1.8	19,598	+2.2
Maine	169	2,830	−.6	77,881	−.4	20	670	−12.6	8,890	−15.0
Maryland	*84*	*12,334*	*−.4*	*351,477*	*−.3*	*26*	*1,459*	*−.1*	*19,051*	−.4
Massachusetts	[13] *139*	*45,677*	*+.2*	*1,314,401*	*+2.0*	*84*	*3,588*	*−1.4*	*54,833*	−1.8
Michigan	405	21,973	+.1	655,079	+1.0	63	3,899	+.3	50,669	+2.1
Minnesota	233	12,582	−2.0	325,596	−.1	55	2,785	−1.4	36,059	−2.9
Mississippi	213	1,915	−3.8	36,685	−4.6	20	507	−1.2	4,123	−4.7
Missouri	238	23,521	−1.6	629,472	−.6	72	4,100	−3.4	50,556	−1.9
Montana	110	1,788	−2.1	52,103	−3.8	15	222	+.5	3,330	−.4
Nebraska	304	5,778	−.3	147,216	−1.3	33	1,528	−3.5	16,864	−6.2
Nevada	38	399	+8.7	10,389	+2.2	10	129	−2.3	2,240	−7.3
New Hampshire	142	2,038	−5.6	59,616	+1.0	14	234	−8.6	2,910	−5.6
New Jersey	280	22,490	−.6	668,335	+.4	72	3,944	−1.4	51,706	−1.7
New Mexico	55	549	+1.1	11,574	−2.7	13	290	−.3	3,105	−.8
New York	910	104,442	−.5	3,248,159	+.2	279	31,178	−1.3	501,384	−1.3
North Carolina	91	1,711	−.5	33,673	+.3	35	1,309	+9.7	11,835	+7.6
North Dakota	171	1,296	−16.2	35,776	−1.3	17	312	−2.2	3,429	−3.6
Ohio	493	32,674	−1.3	832,658	−1.9	161	8,475	−1.6	108,413	−2.7
Oklahoma	254	6,516	−1.3	143,816	−.7	34	734	−.3	6,839	−.8
Oregon	186	5,718	−.2	144,400	−1.6	38	1,007	−3.1	13,776	−2.6
Pennsylvania	708	59,540	−.6	1,636,348	+1.0	182	9,626	−2.1	124,739	−1.6
Rhode Island	35	3,301	−4.3	95,806	−6.1	17	341	−4.7	4,560	−8.0
South Carolina	71	1,635	+1.7	33,762	+1.2	20	485	+3.6	3,628	+14.3
South Dakota	129	963	−.1	25,906	+1.4	14	295	−.7	3,501	−3.1
Tennessee	256	4,690	−.7	101,428	−3.0	39	2,039	+.3	18,588	+.4
Texas	*134*	*6,476*	*−2.9*	*175,702*	*−3.0*	*47*	*2,741*	*+.1*	*31,850*	−2.4
Utah	69	1,708	−3.3	36,825	−3.3	10	457	−3.4	5,648	−13.2
Vermont	120	1,043	−3.0	25,238	−1.2	24	473	−17.0	5,000	−16.2
Virginia	178	5,718	−.3	138,394	−.7	37	1,707	−13.1	19,220	−9.4
Washington	206	9,747	+.1	262,098	+.1	56	1,846	−2.8	22,000	−4.0
West Virginia	131	5,656	−1.4	146,089	−.7	42	1,114	−.7	12,419	−2.7
Wisconsin	[14] *42*	*10,739*	*−3.1*	*292,908*	*−4.0*	[12] *39*	*1,071*	*−2.4*	([15])	-------
Wyoming	44	406	+3.6	9,774	+2.4	12	178	+1.1	2,572	+1.0

[12] Includes restaurants.
[13] Includes steam railroads.
[14] Includes railways and express.
[15] Data not supplied.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN NOVEMBER AND DECEMBER, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Laundries					Dyeing and cleaning				
	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change	Number of establishments	Number on pay roll, December, 1932	Per cent of change	Amount of pay roll (1 week), December, 1932	Per cent of change
Alabama	4	390	+1.6	$3,685	+7.6					
Arkansas	*19*	*473*	*−1.9*	*4,438*	*−.7*	3	36	+16.1	$409	+10.2
Arizona	9	397	+.3	5,743	+.3					
California	[16] *65*	*5,306*	*−.1*	*94,755*	*−1.0*					
Colorado	11	834	−.1	11,769	−.9	9	113	−3.4	1,939	−8.5
Connecticut	27	1,310	−1.4	21,243	−4.2	9	227	−1.3	4,332	−13.0
Delaware	4	305	[11]	4,487	−.5	3	41	−2.4	649	−5.3
District of Columbia	21	2,522	−1.6	39,599	−1.7	6	109	−6.0	2,114	−6.1
Florida	11	497	+3.5	5,067	+10.7					
Georgia	12	629	−1.1	5,745	−4.1	4	116	−2.5	1,225	−9.9
Idaho										
Illinois	[16] *22*	*1,449*	*−1.5*	*21,574*	*−.8*					
Indiana	18	1,440	+1.3	18,312	−.3	10	163	−3.6	2,413	−6.4
Iowa	3	212	+.5	2,989	−5.3					
Kansas	[16] *40*	*1,214*	*−2.1*	*12,801*	*−2.1*					
Kentucky	15	674	+.6	8,517	−[4]	5	217	−.9	3,154	+.3
Louisiana										
Maine	16	342	−2.6	4,642	−5.9					
Maryland	*25*	*1,889*	*−1.3*	*27,796*	*−3.1*	*9*	*404*	*−4.0*	*4,944*	*−10.4*
Massachusetts	*105*	*3,452*	*−.3*	*56,352*	*−1.2*	*121*	*1,625*	*−11.2*	*26,734*	*−12.3*
Michigan	23	1,586	+1.6	20,343	+2.4	14	538	+3.5	8,628	+2.1
Minnesota	12	684	−1.3	10,922	−2.0	10	276	−3.2	4,312	−13.6
Mississippi	6	322	−4.2	2,803	−3.6					
Missouri	34	2,235	+.3	31,827	+.3	9	320	[11]	5,171	−4.9
Montana	11	275	−2.5	5,108	−1.7	3	21	−4.5	413	−4.2
Nebraska	7	494	+11.0	6,823	+6.5	3	26	−10.3	435	−16.8
Nevada	4	50	−5.7	1,010	−1.4					
New Hampshire	16	262	−2.6	3,942	−3.8					
New Jersey	25	2,926	−1.7	58,002	+5.8	7	232	−11.5	5,663	−15.5
New Mexico	6	243	+.8	3,456	−1.5					
New York	70	6,805	−1.2	116,311	−1.2	18	534	−4.1	10,308	−5.5
North Carolina	11	675	−.4	6,951	+.2					
North Dakota	8	185	−1.6	3,087	−3.1					
Ohio	77	4,148	+.9	61,860	+.2	39	1,431	−3.8	21,516	−8.2
Oklahoma	8	585	−1.0	7,051	+.9	3	146	−1.4	1,804	−3.5
Oregon	4	311	−.6	4,650	−4.9	3	35	−7.9	666	−12.8
Pennsylvania	44	3,256	−.3	48,475	−2.5	24	1,086	−5.7	17,391	−9.2
Rhode Island	18	1,075	−1.1	17,837	−1.7	5	259	+1.2	4,660	+2.8
South Carolina	8	321	−2.1	3,024	−5.3					
South Dakota	7	132	−4.3	1,733	−5.8					
Tennessee	12	888	−.3	7,315	−2.2					
Texas	19	833	+.1	9,187	−2.5	12	296	−4.2	4,445	−6.4
Utah	7	516	+1.6	7,305	+3.0	8	130	+.8	2,167	−2.7
Vermont	4	55	−8.3	621	−18.3					
Virginia	13	824	+.4	8,977	−2.5	16	189	−1.0	2,591	−2.8
Washington	15	707	−.7	13,263	−1.6	13	181	−5.2	2,818	−13.2
West Virginia	22	702	−3.4	9,050	−1.9	9	188	−5.5	2,498	−3.2
Wisconsin	[16] *28*	*967*	*−.7*	*12,304*	*−7.3*					
Wyoming	3	71	+1.4	1,274	+6.9					

[4] Less than one-tenth of 1 per cent. [11] No change. [16] Includes dyeing and cleaning.

Employment and Pay Roll in December, 1932, in Cities of Over 500,000 Population

IN THE following table are presented the fluctuations in employment and pay-roll totals in December, 1932, as compared with November, 1932, in 13 cities of the United States having a population of 500,000 or over. These changes are computed from reports received from identical establishments in each of the months considered.

In addition to including reports received from establishments in the several industrial groups regularly covered in the bureau's survey, excluding building construction, reports have also been secured from other establishments in these cities for inclusion in these totals. Information concerning employment in building construction is not available for all cities at this time and therefore has not been included.

FLUCTUATIONS IN EMPLOYMENT AND PAY ROLLS IN DECEMBER, 1932, AS COMPARED WITH NOVEMBER, 1932

Cities	Number of establishments reporting in both months	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		November, 1932	December, 1932		November, 1932	December, 1932	
New York City	2,656	307,207	312,581	+1.7	$8,296,966	$8,322,512	+0.3
Chicago, Ill	1,837	192,866	189,178	−1.9	4,430,227	4,390,869	−.9
Philadelphia, Pa	843	131,118	128,091	−2.3	2,886,915	2,824,853	−2.1
Detroit, Mich	671	143,040	150,610	+5.3	2,974,430	3,168,256	+6.5
Los Angeles, Calif	726	62,553	65,298	+4.4	1,449,035	1,478,826	+2.1
Cleveland, Ohio	1,068	83,290	87,275	+4.8	1,754,794	1,773,515	+1.1
St. Louis, Mo	480	62,437	63,474	+1.7	1,275,786	1,300,286	+1.9
Baltimore, Md	566	46,198	47,482	+2.8	888,293	917,695	+3.3
Boston, Mass	2,936	85,511	86,260	+.9	2,045,459	2,051,718	+.3
Pittsburgh, Pa	411	48,042	49,826	+3.7	927,378	945,571	+2.0
San Francisco, Calif	1,125	44,263	43,920	−.8	1,068,874	1,058,925	−.9
Buffalo, N. Y	323	37,511	35,919	−4.2	830,167	787,900	−5.1
Milwaukee, Wis	456	35,370	36,106	+2.1	709,009	697,624	−1.6

Employment in Executive Civil Service of the United States, December, 1932

THERE were 6,959 fewer persons on the Federal pay rolls throughout the United States in December, 1932, than in November, 1932, and comparing December, 1932, with December, 1931, there were 5,562 fewer employees.

These figures do not include the legislative, judicial, or Army and Navy services. The data shown in the tables below are compiled by the various Federal departments and offices and sent to the United States Civil Service Commission, where they are assembled. They are tabulated by the Bureau of Labor Statistics and published here by courtesy of the Civil Service Commission, and in compliance with the direction of Congress. No information has as yet been collected relative to the amounts of pay rolls. Because of the importance of Washington as a Government center, the figures for the District of Columbia and for the Government service outside of the District of Columbia are shown separately.

On December 31, 1932, there were 564,103 employees in the executive civil service of the United States. Of this number, 532,983 were permanent and 31,120 were temporary. In the interval between December, 1931, and December, 1932, there was a loss of 1.6 per cent

in the number of permanent employees and an increase of 11.2 per cent in the number of temporary employees. This makes a decrease of 1.0 per cent in the total number of Government employees throughout the United States. Comparing December, 1932, with November, 1932, there was a decrease of 1.2 per cent in the number of employees in the Federal service.

The number of employees in the District of Columbia showed a decrease of 4.4 per cent, comparing December, 1932, with December, 1931. The per cent of decrease inside the District of Columbia was therefore more than eight times that outside the District. The number of permanent employees in the District of Columbia decreased 2.1 per cent while the number of temporary employees decreased 44.6 per cent, comparing December, 1932, with December, 1931. There was a decrease of one-tenth of 1 per cent in the total number of Federal employees in the District of Columbia, comparing December, 1932, with November, 1932.

During the month of December, 1932, there were 13,524 additions to the Federal pay roll throughout the United States, and 20,483 separations. This indicates a net turnover rate of 2.38 for the month.

The turnover rate for the District of Columbia was 0.50.

On December 31, 1932, there were 66,302 employees on the Government pay roll in the District of Columbia. Of this number, 64,214 were permanent and 2,088 were temporary workers.

EMPLOYEES IN THE EXECUTIVE CIVIL SERVICE OF THE UNITED STATES, DECEMBER, 1931, AND NOVEMBER AND DECEMBER, 1932[1]

Item	District of Columbia			Outside district			Entire service		
	Permanent	Temporary[2]	Total	Permanent	Temporary[2]	Total	Permanent	Temporary[2]	Total
Number of employees:									
December, 1931	65,601	3,766	69,367	476,079	24,219	500,298	541,680	27,985	569,665
November, 1932	64,342	2,046	66,388	468,620	36,054	504,674	532,962	38,100	571,062
December, 1932	64,214	2,088	66,302	468,769	29,032	497,801	532,983	31,120	564,103
Gain or loss:									
December, 1931–December, 1932	−1,387	−1678	−3,065	−7,310	+4,813	−2,497	−8,697	+3,135	−5,562
November, 1932–December, 1932	−128	+42	−86	+149	−7,022	−6,873	+21	−6,980	−6,959
Per cent of change:									
December, 1931–December, 1932	−2.1	−44.6	−4.4	−1.5	+19.9	−0.5	−1.6	+11.2	−1.0
November, 1932–December, 1932	−0.2	+2.1	−0.1	−(3)	−19.5	−1.4	+(3)	−18.3	−1.2
Labor turnover, December, 1932:									
Additions	150	181	331	2,431	10,762	13,193	2,581	10,943	13,524
Separations	278	139	417	2,282	17,784	20,066	2,560	17,923	20,483
Turnover rate	0.23	6.72	0.50	0.49	33.07	2.63	0.48	31.62	2.38

[1] Certain revisions have been made from time to time by the Civil Service Commission in dropping certain classes of employees previously carried in the tabulations. Thus, in the District of Columbia, 68 mail contractors and special-delivery messengers were eliminated from the enumeration in May, 1932, and in the service outside the District of Columbia 35,800 star-route and other contractors, clerks in charge of mail contract stations, clerks in third-class post offices, and special-delivery messengers were eliminated in April, 1932, and 835 collaborators of the Department of Agriculture in June, 1932. In the table, in order to make the figures comparable for all the months shown, it was assumed that the number of these employees was the same in 1931, as in the month they were dropped from the tabulation (actual figures not being available from the Civil Service Commission), and the data for this month have been revised accordingly in this table.

[2] Not including field service of the Post Office Department.

[3] Less than one-tenth of 1 per cent.

Employment on Class I Steam Railroads in the United States

DATA are not yet available concerning railroad employment for December, 1932. Reports of the Interstate Commerce Commission for Class I railroads show that the number of employees (exclusive of executives and officials) decreased from 1,020,132 on October 15, 1932, to 1,000,119 on November 15, 1932, or 2.0 per cent; the amount of pay roll decreased from $119,905,613 in October to $114,581,486 in November, or 4.4 per cent.

The monthly trend of employment from January, 1923, to November, 1932, on Class I railroads—that is, all roads having operating revenues of $1,000,000 or over—is shown by the index numbers published in the following table. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the 12-month average for 1926 as 100.

TABLE 1.—INDEXES OF EMPLOYMENT, ON **CLASS I STEAM RAILROADS** IN THE UNITED STATES, JANUARY, 1923, TO NOVEMBER, 1932

[12-month average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
January	98.3	96.9	95.6	95.8	95.5	89.3	88.2	86.3	73.7	61.2
February	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4	72.7	60.3
March	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5	72.9	60.5
April	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0	73.5	60.0
May	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6	73.9	59.7
June	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5	72.8	57.8
July	108.2	98.1	99.4	102.9	101.0	95.6	96.6	84.7	72.4	56.4
August	109.4	99.0	99.7	102.7	99.5	95.7	97.4	83.7	71.2	55.0
September	107.8	99.7	99.9	102.8	99.1	95.3	96.8	82.2	69.3	55.8
October	107.3	100.8	100.7	103.4	98.9	95.3	96.9	80.4	67.7	57.0
November	105.2	99.0	99.1	101.2	95.7	92.9	93.0	77.0	64.5	55.9
December	99.4	96.0	97.1	98.2	91.9	89.7	88.8	74.9	62.6	.....
Average	104.1	98.3	97.9	100.0	97.5	92.9	93.3	83.5	70.6	[1] 58.1

[1] Average for 11 months.

Table 2 shows the total number of employees on the 15th day each of November, 1931, and October and November, 1932, and total pay roll for the entire months.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, NOVEMBER, 1931, AND OCTOBER AND NOVEMBER, 1932

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees			Total earnings		
	November 15, 1931	October 15, 1932	November 15, 1932	November, 1931	October, 1932	November, 1932
Professional, clerical, and general	209,224	175,731	175,271	$29,720,407	$23,093,056	$22,833,014
Clerks	113,086	93,006	92,599	15,028,441	11,571,164	11,358,854
Stenographers and typists	19,461	16,445	16,422	2,479,268	1,939,882	1,922,412
Maintenance of way and structures	234,886	217,534	204,067	19,495,096	15,999,117	14,760,096
Laborers, extra gang and work train	18,105	15,025	12,798	1,032,633	773,395	631,823
Laborers, track and roadway section	125,159	121,744	111,475	7,003,005	6,125,350	5,281,094
Maintenance of equipment and stores	313,116	276,994	277,856	35,620,205	27,905,297	27,818,322
Carmen	64,788	57,449	57,111	8,289,738	6,463,244	6,388,117
Machinists	42,066	39,146	39,167	5,428,597	4,531,261	4,499,932
Skilled trades	68,295	60,092	60,349	6,367,696	4,927,031	4,929,803
Laborers (shops, engine houses, power plants, and stores)	26,278	22,021	21,917	2,292,091	1,668,844	1,628,459
Common laborers (shop, engine houses, power plants, and stores)	32,674	28,770	29,245	2,108,231	1,661,565	1,658,115
Transportation, other than train, engine, and yard	150,136	131,037	129,099	18,218,805	14,645,022	14,130,076
Station agents	27,105	25,355	25,235	4,097,744	3,537,817	3,465,639
Telegraphers, telephoners, and towermen	18,458	16,336	16,205	2,812,695	2,254,140	2,169,344
Truckers (stations, warehouses, and platforms)	21,632	18,517	17,623	1,832,883	1,454,889	1,310,932
Crossing and bridge flagmen and gatemen	18,663	17,853	17,780	1,421,852	1,210,476	1,200,377
Transportation (yardmasters, switch tenders, and hostlers)	16,417	13,215	13,205	3,030,751	2,200,348	2,158,159
Transportation, train and engine	230,761	205,621	200,621	42,561,688	36,062,773	32,881,819
Road conductors	26,107	23,498	22,612	5,892,090	5,088,737	4,630,788
Road brakemen and flagmen	50,605	45,966	44,193	7,988,732	6,945,609	6,199,102
Yard brakemen and yard helpers	39,878	34,426	34,231	6,046,778	4,861,041	4,501,887
Road engineers and motormen	30,924	27,956	27,011	7,786,014	6,788,532	6,137,346
Road firemen and helpers	31,588	29,284	28,276	5,624,313	4,893,905	4,410,574
All employees	1,154,540	1,020,132	1,000,119	148,646,952	119,905,613	114 581 486

Unemployment in Foreign Countries

THE following table gives detailed monthly statistics of unemployment in foreign countries, as shown in official reports from December, 1930, to the latest available date:

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES

Date (end of month)	Australia		Austria	Belgium			
	Trade-unionists unemployed		Compulsory insurance, number unemployed in receipt of benefit	Unemployment-insurance societies			
				Wholly unemployed		Partially unemployed	
	Number	Per cent		Number	Per cent	Number	Per cent
1930							
December	104,951	23.4	294,845	63,585	9.3	117,167	17.0
1931							
January	(1)		331,239	77,181	11.1	112,734	16.2
February	(1)		334,041	81,750	11.7	121,906	19.4
March	113,614	25.8	304,084	81,305	11.3	125,972	17.7
April	(1)		246,845	70,377	10.0	110,139	15.6
May	(1)		208,852	56,250	7.9	97,755	13.8
June	118,424	27.6	191,150	62,642	8.9	101,616	14.4
July	(1)		194,364	64,644	9.1	116,747	16.3
August	(1)		196,321	70,893	9.9	120,669	16.8
September	120,694	28.3	202,130	74,175	10.3	119,433	16.6
October	(1)		228,101	82,811	11.3	122,733	16.8
November	(1)		273,658	93,487	13.3	134,799	19.2
December	118,732	28.0	329,627	128,884	17.0	159,941	21.1
1932							
January	(1)		358,114	153,920	20.0	179,560	23.2
February	(1)		361,948	168,204	21.3	180,079	22.8
March	120,366	28.3	352,444	155,653	19.4	185,267	23.0
April	(1)		303,888	152,530	18.8	183,668	22.6
May	(1)		271,481	160,700	18.9	191,084	22.5
June	124,068	30.0	265,040	153,659	18.7	173,819	21.2
July	(1)		266,365	169,411	19.6	174,646	20.3
August	(1)		269,188	167,212	19.5	170,081	19.9
September	122,340	29.6	275,840	163,048	18.3	166,160	18.9
October			297,791	157,023	17.7	148,812	16.8
November			329,707	154,657	17.7	144,583	16.3
December			367,829				

Date (end of month)	Canada	Czechoslovakia			Danzig (Free City of)	Denmark	
	Per cent of trade-unionists unemployed	Number of unemployed on live register	Trade-union insurance funds—unemployed in receipt of benefit		Number of unemployed registered	Trade-union unemployment funds—unemployed	
			Number	Per cent		Number	Per cent
1930							
December	17.0	239,564	93,476	8.3	24,429	71,100	24.6
1931							
January	16.0	313,511	104,580	9.5	27,081	70,961	24.2
February	15.6	343,972	117,450	10.0	28,192	73,427	26.0
March	15.5	339,505	119,350	10.0	27,070	67,725	22.1
April	14.9	296,756	107,238	8.9	24,186	45,698	15.3
May	16.2	249,686	93,941	7.6	20,686	37,856	12.3
June	16.3	220,038	82,534	6.6	19,855	34,030	11.3
July	16.2	209,233	82,759	6.6	20,420	36,369	11.8
August	15.8	214,520	86,261	6.9	21,509	35,060	11.8
September	18.1	228,383	84,660	6.7	22,922	35,871	12.1
October	18.3	253,518	88,600	6.9	24,932	47,196	16.0
November	18.6	336,874	106,015	8.2	28,966	66,526	22.3
December	21.1	480,775	146,325	11.3	32,956	91,216	30.4
1932							
January	22.0	583,138	186,308	14.0	34,912	105,600	35.1
February	20.6	631,736	197,612	14.8	36,258	112,346	37.3
March	20.4	633,907	195,076	14.6	36,481	113,378	37.5
April	23.0	555,832	180,456	13.3	33,418	90,704	29.9
May	22.1	487,228	171,389	12.6	31,847	79,931	26.1
June	21.9	466,948	168,452	12.3	31,004	80,044	25.6
July	21.8	453,294	167,529	12.2	29,195	92,732	29.5
August	21.4	460,952	172,118	12.5	28,989	95,770	30.5
September	20.4	486,935	170,772	12.3	30,469	96,076	30.4
October	22.0	533,616	173,706	12.4	31,806	101,518	31.8
November	22.8	608,809			35,507	113,273	35.6
December		749,876			39,042		

[1] Not reported. [2] Provisional figure.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Estonia	Finland	France	Germany			
					Trade-unionists		
	Number unemployed remaining on live register	Number of unemployed registered	Number of unemployed in receipt of benefit	Number of unemployed registered	Per cent wholly unemployed	Per cent partially unemployed	Number unemployed in receipt of benefit
1930							
December	6,163	9,336	11,952	4,384,000	31.7	16.9	2,822,598
1931							
January	5,364	11,706	28,536	4,887,000	34.2	19.2	3,364,770
February	4,070	11,557	40,766	4,972,000	34.5	19.5	3,406,979
March	2,765	11,491	50,815	4,756,000	33.6	18.9	3,240,523
April	2,424	12,663	49,958	4,358,000	31.2	18.0	2,789,627
May	1,368	7,342	41,359	4,053,000	29.9	17.4	2,507,732
June	931	6,320	36,237	3,954,000	29.7	17.7	2,353,657
July	634	6,790	35,916	3,976,000	31.0	19.1	2,231,513
August	933	9,160	37,673	4,215,000	33.6	21.4	2,376,589
September	2,096	12,176	38,524	4,355,000	35.0	22.2	2,483,364
October	5,425	14,824	51,654	4,623,480	36.6	22.0	2,534,952
November	7,554	18,095	92,157	5,059,773	38.9	21.8	2,771,985
December	9,055	17,223	147,009	5,668,187	42.2	22.3	3,147,867
1932							
January	9,318	20,944	241,487	6,041,910	43.6	22.6	3,481,418
February	9,096	18,856	293,198	6,128,429	44.1	22.6	3,525,486
March	8,395	17,699	303,218	6,034,100	44.6	22.6	3,323,109
April	6,029	16,885	282,013	5,934,202	43.9	22.1	2,906,890
May	4,896	13,189	262,184	5,582,620	43.3	22.9	2,658,042
June	3,137	12,709	232,371	5,475,778	43.1	20.4	2,484,944
July	2,022	13,278	262,642	5,392,248	43.9	23.0	2,111,342
August	3,256	16,966	264,253	5,223,810	44.0	23.2	1,991,985
September	5,957	18,563	259,237	5,102,750	43.6	22.7	1,849,768
October	8,901	19,908	247,090	5,109,173	42.9	22.6	1,720,577
November	10,715	21,690	255,411	5,355,428	43.2	22.1	1,768,602
December			277,109	5,772,852			[1] 1,886,529

Date (end of month)	Great Britain and Northern Ireland				Great Britain	Hungary	
	Compulsory insurance					Trade-unionists unemployed	
	Wholly unemployed		Temporary stoppages		Number of persons registered with employment exchanges	Christian (Budapest)	Social-Democratic
	Number	Per cent	Number	Per cent			
1930							
December	1,853,575	14.9	646,205	5.3	2,392,738	935	24,648
1931							
January	2,044,209	16.5	618,633	5.0	2,613,749	953	26,191
February	2,073,578	16.7	623,844	5.0	2,627,559	965	27,089
March	2,052,826	16.5	612,821	5.0	2,581,030	996	27,092
April	2,027,896	16.3	564,884	4.6	2,531,674	1,042	27,129
May	2,019,533	16.3	558,383	4.5	2,596,431	843	26,131
June	2,037,480	16.4	669,315	5.4	2,629,215	751	23,660
July	2,073,892	16.7	732,583	5.9	2,662,765	876	26,329
August	2,142,821	17.3	670,342	5.4	2,732,434	941	28,471
September	2,217,080	17.9	663,466	5.3	2,879,466	932	28,716
October	2,305,388	18.1	487,591	3.8	2,755,559	1,020	28,998
November	2,294,902	18.0	439,952	3.4	2,656,088	1,169	29,907
December	2,262,700	17.7	408,117	3.2	2,569,949	1,240	31,906
1932							
January	2,354,044	18.4	500,746	4.0	2,728,411	1,182	32,711
February	2,317,784	18.2	491,319	3.8	2,701,173	1,083	32,645
March	2,233,425	17.5	426,989	3.3	2,567,332	1,024	31,340
April	2,204,740	17.3	521,705	4.1	2,652,181	961	30,057
May	2,183,683	17.1	638,157	5.0	2,741,306	922	28,835
June	2,145,157	16.8	697,639	5.5	2,747,343	960	28,372
July	2,185,015	17.1	735,929	5.8	2,811,782	940	28,297
August	2,215,704	17.4	731,104	5.7	2,859,828	947	28,186
September	2,279,779	17.9	645,286	5.0	2,858,011	1,022	27,860
October	2,295,500	17.9	515,405	4.0	2,747,006	1,091	28,654
November	2,328,920	18.2	520,105	4.0	2,799,806		
December					2,723,287		

[1] Provisional figure.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Irish Free State	Italy		Latvia	Netherlands	
	Compulsory insurance—number unemployed	Number of unemployed registered		Number unemployed remaining on live register	Unemployment-insurance societies—unemployed	
		Wholly unemployed	Partially unemployed		Number	Per cent
1930						
December	26,167	642,169	21,788	10,022	81,204	18.2
1931						
January	28,681	722,612	27,924	9,207	100,340	23.2
February	26,825	765,325	27,110	8,303	109,235	23.5
March	25,413	707,486	27,545	8,450	102,743	21.8
April	23,970	670,353	28,780	6,390	68,860	14.3
May	23,016	635,183	26,059	1,871	60,189	12.2
June	21,427	573,593	24,206	1,584	59,573	11.7
July	21,647	637,531	25,821	2,169	69,026	13.3
August	21,897	693,273	30,636	4,827	70,479	15.3
September	23,427	747,764	29,822	7,470	72,738	15.7
October	26,353	799,744	32,828	13,605	84,548	18.0
November	30,865	878,267	30,967	18,377	107,372	18.5
December	30,918	982,321	32,949	21,935	147,107	27.8
1932						
January	31,958	1,051,321	33,277	26,335	145,124	27.0
February	31,162	1,147,945	26,321	22,222	139,956	25.4
March	30,866	1,053,016	31,636	22,912	119,423	21.6
April	32,252	1,000,025	32,720	14,607	121,378	21.7
May	35,874	968,456	35,528	7,599	112,325	22.5
June	[3] 66,912	905,097	31,710	7,056	113,978	22.8
July	[3] 77,648	931,291	33,218	7,181	123,947	24.6
August	[3] 57,081	945,972	33,666	----------	116,524	22.9
September	[3] 80,923	949,408	37,043	----------	126,510	24.9
October	[3] 70,067	956,357	32,556	----------	128,961	25.2
November	[3] 102,747	1,038,757	36,349	----------	142,554	27.6
December	----------	----------	----------	----------	188,252	31.5

Date (end of month)	New Zealand	Norway			Poland	Rumania
	Trade-unionists, number unemployed	Trade-unionists (10 unions) unemployed		Number unemployed remaining on live register	Number unemployed registered with employment offices	Number unemployed remaining on live register
		Number	Per cent			
1930						
December	[1]	11,265	25.5	27,157	299,797	36,212
1931						
January	[1]	11,692	26.3	28,596	340,718	38,804
February	[1]	[1]	----------	29,107	358,925	43,270
March	[4] 38,028	11,213	24.9	29,095	372,536	48,226
April	[4] 36,981	[1]	----------	28,477	351,679	41,519
May	[4] 40,507	----------	----------	25,206	313,104	33,484
June	[4] 45,264	----------	----------	22,736	274,942	28,093
July	[4] 47,772	----------	----------	20,869	255,179	29,250
August	[4] 50,033	----------	----------	22,431	246,380	22,708
September	[4] 51,375	----------	----------	27,012	246,426	22,909
October	[4] 50,266	[5] 9,048	[5] 19.6	29,340	255,622	28,800
November	[4] 47,535	10,577	22.8	32,078	266,027	43,917
December	[4] 45,140	12,633	27.2	34,789	312,487	49,393
1932						
January	[4] 45,677	14,160	30.4	35,034	338,434	51,612
February	[4] 44,107	14,354	30.6	38,135	350,145	57,606
March	[4] 45,383	15,342	32.5	38,952	360,031	55,306
April	[4] 48,601	14,629	30.8	37,703	339,773	47,206
May	[4] 53,543	13,465	28.3	32,127	306,801	39,654
June	[4] 54,342	12,603	26.2	28,429	264,147	33,679
July	[4] 55,203	12,563	25.9	26,390	218,059	32,809
August	[4] 56,332	13,084	26.9	27,543	187,537	[1]
September	[4] 55,855	14,358	29.3	31,431	147,166	29,654
October	[4] 54,549	15,512	31.6	35,082	146,982	21,862
November	----------	----------	----------	[3] 38,807	177,459	----------
December	----------	----------	----------	[3] 41,571	220,245	----------

[1] Not reported. [2] Provisional figure. [3] Registration area extended.
[4] New series of statistics showing unemployed registered by the employment exchanges. Includes not only workers wholly unemployed but also those intermittently employed.
[5] Strike ended.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Saar Territory	Sweden		Switzerland				Yugoslavia
				Unemployment funds				
	Number of unemployed registered	Trade-unionists unemployed		Wholly unemployed		Partially unemployed		Number of unemployed registered
		Number	Per cent	Number	Per cent	Number	Per cent	
1930								
December	15,245	86,042	22.9	21,400	6.6	33,483	10.4	9,989
1931								
January	18,921	69,437	19.8	20,551	8.3	30,977	12.5	11,903
February	20,139	66,923	18.4	20,081	7.9	30,879	12.2	14,424
March	18,292	72,944	19.3	18,991	5.4	41,880	12.4	12,029
April	18,102	64,534	17.5	10,389	4.0	27,726	10.6	11,391
May	14,886	49,807	13.2	9,174	3.5	26,058	9.9	6,929
June	15,413	45,839	12.1	12,577	3.6	34,266	9.7	4,431
July	17,685	46,180	12.4	12,200	3.3	39,000	11.3	6,672
August	20,205	48,590	12.7	9,754	3.6	33,346	12.4	7,466
September	21,741	54,405	13.7	15,188	4.0	42,998	11.2	7,753
October	24,685	65,469	16.4	18,000	4.8	47,200	13.2	10,070
November	28,659	79,484	19.9	25,200	6.6	51,900	14.4	10,349
December	35,045	110,149	27.2	41,611	10.1	61,256	14.9	14,502
1932								
January	38,790	93,272	24.5	44,600	10.6	67,600	14.8	19,665
February	42,394	93,900	23.0	48,600	11.3	70,100	15.0	21,435
March	44,883	98,772	24.4	40,423	9.0	62,659	14.0	23,251
April	42,993	82,500	21.0	35,400	7.7	58,900	12.6	18,532
May	42,881	75,650	18.9	35,200	7.6	54,500	11.5	13,568
June	40,188	79,338	19.5	33,742	7.1	53,420	13.3	11,418
July	39,063	77,468	19.4	35,700	7.5	54,000	11.4	9,940
August	38,858	80,975	20.0	36,600	7.6	53,400	11.1	11,940
September	40,320	86,709	20.7	38,070	7.8	52,967	10.8	10,985
October	40,728	92,868	22.2	42,300	8.7	52,100	10.6	10,474
November	41,962	97,666	23.8					11,670

RETAIL PRICES

Retail Prices of Food in December, 1932

THE following tables are compiled from simple averages of the actual selling prices received monthly by the Bureau of Labor Statistics of the United States Department of Labor from retail dealers in 51 cities.

Indexes of all articles combined, or groups of articles combined, both for cities and for the United States, are weighted according to the average family consumption. Consumption figures used since January, 1921, are given in Bulletin 495 (p. 13). Those used for prior dates are given in Bulletin 300 (p. 61).

Table 1 shows the average retail prices of the principal food articles for the United States, 51 cities combined, on December 15, 1931, and November 15, December 15, 1932, and the average for the year 1932.

TABLE 1.—AVERAGE RETAIL PRICES OF FOOD IN THE UNITED STATES (51 CITIES) ON DECEMBER 15, 1931, AND NOVEMBER 15, DECEMBER 15, AND THE YEAR, 1932

Article	Unit	Dec. 15, 1931	Nov. 15, 1932	Dec. 15, 1932	Year 1932	Article	Unit	Dec. 15, 1931	Nov. 15, 1932	Dec. 15, 1932	Year 1932
		Cts.	*Cts.*	*Cts.*	*Cts.*			*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	36.3	31.4	29.9	33.3	Flour	Pound	3.3	3.0	2.9	3.2
Round steak	do	31.3	27.1	25.8	28.9	Corn meal	do	4.1	3.6	3.5	3.8
Rib roast	do	26.7	22.9	22.1	24.1	Rolled oats	do	7.9	7.3	5.9	7.4
Chuck roast	do	19.6	16.6	15.8	17.3	Corn flakes	8-oz. pkg.	8.7	8.5	8.5	8.6
Plate beef	do	13.1	11.1	10.7	11.3	Wheat cereals	28-oz. pkg.	23.0	22.4	22.3	22.5
Pork chops	do	21.8	20.2	17.6	21.2	Macaroni	Pound	16.0	14.9	14.8	15.3
Bacon, sliced	do	30.3	22.5	21.6	24.1	Rice	do	7.4	6.2	6.0	6.7
Ham, sliced	do	39.7	31.7	30.3	35.0	Beans, navy	do	6.2	4.6	4.4	5.1
Lamb, leg of	do	24.9	21.3	21.0	23.7	Potatoes	do	1.8	1.4	1.5	1.7
Hens	do	28.6	22.4	21.2	23.8	Onions	do	5.2	2.6	2.7	5.2
Salmon, red, canned.	16-oz. can	29.6	19.6	19.5	24.5	Cabbage	do	3.4	2.3	2.5	4.0
Milk, fresh	Quart	11.6	10.6	10.4	10.9	Pork and beans.	16-oz. can	8.2	6.8	6.8	7.4
Milk, evaporated.	14½-oz. can.	8.0	6.0	6.5	6.9	Corn, canned	No. 2 can	11.9	10.2	10.2	10.7
Butter	Pound	36.5	27.5	29.8	27.4	Peas, canned	do	13.5	12.7	12.6	12.9
Margarine	do	18.8	14.3	14.5	15.2	Tomatoes, canned.	do	9.6	8.8	8.7	9.3
Cheese	do	26.2	22.4	22.4	23.0	Sugar	Pound	5.5	5.1	5.1	5.1
Lard	do	11.2	8.7	8.1	8.8	Tea	do	75.1	68.1	67.8	70.9
Vegetable lard substitute.	do	22.0	18.9	18.8	20.1	Coffee	do	31.5	30.1	29.7	30.2
						Prunes	do	10.5	8.8	8.9	9.4
						Raisins	do	11.5	9.9	9.6	11.1
Eggs, strictly fresh.	Dozen	38.5	37.6	39.9	27.2	Bananas	Dozen	24.8	21.9	22.9	22.9
						Oranges	Pound	31.3	30.7	28.5	31.0
Bread	Pound	7.2	6.7	6.6	6.8						

Table 2 shows the trend in the weighted retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years for 1913, 1920, 1928, 1929, 1930, 1931, and 1932, and by months for 1931 and 1932. The articles included in these groups will be found in the May, 1932, issue of this publication.

TABLE 2.—WEIGHTED INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS, FOR THE UNITED STATES, BY YEARS, FOR 1913, 1920, 1928, 1929, 1930, 1931, AND 1932, AND BY MONTHS, 1931 AND 1932

[Average cost in 1913=100.0]

Year and month	Cereals	Meats	Dairy products	Year and month	Cereals	Meats	Dairy products
1913	100.0	100.0	100.0	1931—Continued.			
1920	232.1	185.7	185.1	November	129.1	135.4	114.4
1928	167.2	179.2	150.0	December	127.8	129.3	111.4
1929	164.1	188.4	148.6	1932: Average for year	121.1	116.0	96.6
1930	158.0	175.8	136.5	January	126.4	123.4	106.5
1931: Average for year	135.9	147.0	114.6	February	125.0	117.3	102.9
January	147.1	159.5	123.6	March	124.3	118.9	101.9
February	144.6	153.4	120.2	April	122.9	118.6	97.4
March	142.4	152.5	120.5	May	122.6	115.3	94.3
April	138.9	151.4	116.5	June	122.5	113.4	92.6
May	137.7	149.3	110.3	July	121.2	122.6	91.4
June	136.3	145.7	108.3	August	120.4	120.1	93.1
July	134.3	147.8	109.6	September	119.2	119.2	93.5
August	132.0	149.1	111.9	October	119.0	114.6	93.8
September	130.2	147.7	114.3	November	118.0	109.1	93.9
October	129.8	142.7	117.0	December	114.8	103.2	95.9

Index Numbers of Retail Prices of Food in the United States

IN TABLE 3 index numbers are given which show the changes in the retail prices of specified food articles, and in the weighted cost of all articles combined by years, for 1913, 1920, 1928, 1929, 1930, 1931, and 1932, and by months for 1931 and 1932. These index numbers are based on the average for the year 1913 as 100.0.

TABLE 3.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, BY YEARS, 1913, 1920, 1928, 1929, 1930, 1931, AND 1932, AND BY MONTHS FOR 1931 AND 1932

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Lamb, leg of	Hens	Milk	Butter
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	207.9	209.9	187.6	183.0
1928	188.2	188.3	176.8	174.4	157.0	165.7	163.0	196.7	208.5	175.6	159.6	147.5
1929	196.9	199.1	185.4	186.9	172.7	175.7	161.1	204.1	212.2	186.4	160.7	143.9
1930	182.7	184.8	172.7	170.0	155.4	171.0	156.7	198.5	185.7	166.7	157.3	120.4
1931	155.1	154.3	146.0	134.4	118.2	138.6	134.8	170.6	156.1	145.5	138.2	92.4
January	167.3	168.2	159.1	152.5	138.0	141.9	148.9	188.1	166.1	153.5	149.4	98.4
February	161.4	161.0	154.0	145.6	131.4	131.4	145.2	183.3	164.6	148.8	146.1	94.8
March	158.7	157.8	153.0	141.9	128.1	140.0	143.0	178.4	164.0	150.2	144.9	97.4
April	157.5	156.5	150.0	139.4	124.8	141.4	141.1	175.5	165.6	153.1	141.6	91.9
May	155.5	154.7	147.0	135.6	119.8	143.3	139.3	172.9	165.1	148.8	138.2	81.5
June	152.4	151.1	142.9	130.6	112.4	140.0	136.7	170.6	161.9	146.0	134.8	80.7
July	154.3	154.3	142.9	130.0	110.7	151.4	137.0	171.4	158.7	144.6	136.0	82.8
August	155.5	155.2	143.9	130.0	109.9	158.6	135.6	171.4	156.6	145.1	136.0	89.8
September	155.1	154.3	142.9	130.6	111.6	153.3	134.1	169.5	152.4	145.1	136.0	96.1
October	152.0	150.7	141.4	129.4	111.6	139.5	127.0	164.3	145.5	140.4	134.8	104.2
November	146.9	144.8	137.9	126.3	109.9	119.0	118.9	155.4	138.1	137.1	134.8	97.4
December	142.9	140.4	134.8	122.5	108.3	103.8	112.2	147.6	131.7	134.3	130.3	95.3
1932	131.1	129.6	121.7	108.1	93.4	101.0	89.3	130.1	125.4	111.7	122.5	71.5
January	137.4	135.0	129.8	115.6	101.7	99.5	101.5	139.8	127.5	131.0	129.2	84.3
February	130.7	127.4	123.2	108.1	97.5	91.0	96.7	136.4	125.4	127.2	128.1	77.0
March	129.9	127.8	123.2	108.1	95.9	102.4	95.2	136.1	131.7	128.2	127.0	77.0
April	131.5	128.3	122.7	108.8	95.9	102.4	92.2	134.9	135.4	124.9	123.6	70.0
May	129.9	127.4	120.2	106.3	91.7	94.8	88.5	131.2	132.3	120.7	121.3	65.5
June	129.1	127.4	118.7	105.6	88.4	93.8	85.9	129.7	128.6	113.1	121.3	62.9
July	139.0	139.0	125.8	113.1	92.6	121.4	87.8	133.8	131.7	110.8	120.2	62.4
August	137.4	138.1	124.2	112.5	92.6	111.0	88.5	132.7	127.0	108.5	118.0	70.0
September	135.4	135.4	122.7	111.3	92.6	113.3	87.0	130.9	123.8	110.3	119.1	70.2
October	130.3	129.6	119.7	108.1	93.4	102.4	85.9	126.4	116.9	108.5	120.2	69.7
November	123.6	121.5	115.7	103.8	91.7	96.2	83.3	117.8	112.7	105.2	119.1	71.8
December	117.7	115.7	111.6	98.8	88.4	83.8	80.0	112.6	111.1	99.5	116.9	77.8

TABLE 3.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, BY YEARS, 1913, 1920, 1928, 1929, 1930, 1931, AND 1932, AND BY MONTHS FOR 1931 AND 1932—Continued

Year and month	Cheese	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles [1] (weighted)
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	188.2	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1928	174.2	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1929	171.9	115.8	142.0	160.7	154.5	176.7	111.5	188.2	120.0	142.6	164.8	156.7
1930	158.8	107.6	118.8	155.4	142.4	176.7	109.2	211.8	112.7	142.5	136.2	147.1
1931	127.1	84.2	91.9	135.7	109.1	153.3	94.3	135.3	103.6	138.6	113.4	121.3
January	145.2	99.4	104.6	146.4	121.2	170.0	102.3	170.6	107.3	141.0	126.8	132.8
February	141.2	91.8	78.8	142.9	121.2	166.7	102.3	158.8	107.3	140.6	125.2	127.0
March	137.1	89.9	82.6	141.1	118.2	166.7	98.9	158.8	105.5	139.7	121.8	126.4
April	132.6	89.9	79.4	137.5	115.2	163.3	96.6	164.7	103.6	138.2	116.1	124.0
May	124.0	85.4	71.9	137.5	112.1	153.3	95.4	164.7	101.8	136.9	112.4	121.0
June	119.9	82.3	74.8	135.7	112.1	150.0	94.3	141.2	101.8	136.8	111.1	118.3
July	118.6	82.3	82.9	133.9	109.1	150.0	93.1	135.3	101.8	137.3	109.1	119.0
August	119.9	81.0	92.5	132.1	103.0	150.0	93.1	129.4	103.6	138.6	108.7	119.7
September	122.2	79.8	98.0	130.4	100.0	150.0	92.0	117.6	103.6	139.3	108.7	119.4
October	122.6	78.5	109.9	130.4	100.0	146.7	89.7	105.9	101.8	139.0	107.7	119.1
November	121.3	77.2	115.1	130.4	100.0	140.0	86.2	100.0	101.8	138.1	106.7	116.7
December	118.6	70.9	111.6	128.6	100.0	136.7	85.1	105.9	100.0	138.1	105.7	114.3
1932	104.1	55.7	78.8	121.4	97.0	126.7	77.0	100.0	92.7	130.3	101.3	102.1
January	115.4	63.9	85.8	126.8	100.0	133.3	85.1	100.0	98.2	136.2	104.4	109.3
February	110.4	59.5	70.1	125.0	100.0	133.3	83.9	100.0	96.4	135.3	104.0	105.3
March	107.7	57.6	61.2	125.0	97.0	130.0	81.6	100.0	94.5	134.7	103.4	105.0
April	105.4	55.1	58.0	123.2	97.0	130.0	79.3	100.0	92.7	133.1	102.3	103.7
May	101.8	52.5	58.0	123.2	97.0	130.0	77.0	105.9	89.1	132.4	100.7	101.3
June	100.9	49.4	60.3	123.2	97.0	130.0	75.9	117.6	89.1	130.5	99.7	100.1
July	99.5	53.8	66.1	121.4	97.0	126.7	75.9	111.8	90.9	129.2	99.7	101.0
August	102.3	56.3	77.7	121.4	93.9	126.7	74.7	100.0	92.7	128.9	99.3	100.8
September	102.7	57.6	85.5	119.6	93.9	126.7	74.7	88.2	92.7	128.5	101.0	100.3
October	102.3	57.0	100.3	119.6	93.9	123.3	73.6	88.2	92.7	125.9	101.7	100.4
November	101.4	55.1	109.0	119.6	90.9	120.0	71.3	82.4	92.7	125.2	101.0	99.4
December	101.4	51.3	115.7	117.9	87.9	116.7	70.0	88.2	92.7	124.6	99.7	98.7

[1] 22 articles in 1913–1920; 42 articles in 1921–1932.

Comparison of Retail Food Costs in 51 Cities

TABLE 4 shows for 39 cities the percentage of increase or decrease in the weighted retail cost of food in the United States in December, 1932, compared with the average cost in the year 1913, in December, 1931, and November, 1932. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913.

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of December schedules were received from 99 per cent of the firms in the 51 cities from which retail prices of food are collected.

Out of about 1,166 food reports 20 were not received—1 each in Birmingham, Houston, Louisville, Manchester, Minneapolis, Newark, Norfolk, and Rochester; 2 each in Denver, New York, and San Francisco; 3 each in New Orleans and Seattle.

Out of about 350 bread reports 3 were missing, 1 each in Baltimore, Bridgeport, and Seattle.

A perfect record is shown for the following-named cities: Atlanta, Boston, Buffalo, Butte, Charleston (S. C.), Chicago, Cincinnati, Cleveland, Columbus, Dallas, Detroit, Fall River, Indianapolis, Jacksonville, Kansas City, Little Rock, Los Angeles, Memphis, Milwaukee, Mobile, New Haven, Omaha, Peoria, Philadelphia, Pittsburgh, Portland (Me.), Portland (Oreg.), Providence, Richmond,

St. Louis, St. Paul, Salt Lake City, Savannah, Scranton, Springfield (Ill.), and Washington.

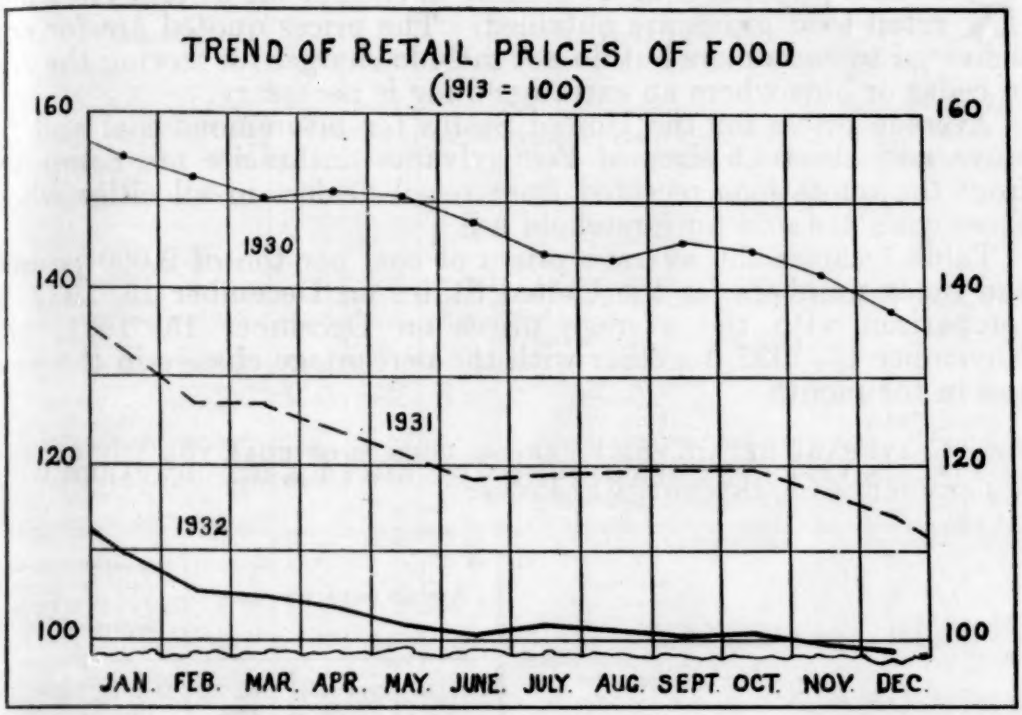


TABLE 4.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN DECEMBER, 1932, COMPARED WITH THE COST IN DECEMBER, 1931, NOVEMBER, 1932, AND WITH THE COST IN THE YEAR 1913, BY CITIES

City	Per cent of change Dec. 15, 1932, compared with—			City	Per cent of change Dec. 15, 1932, compared with—		
	1913	December, 1931	November, 1932		1913	December, 1931	November, 1932
United States	−1.3	−13.7	−0.7	Minneapolis	−1.9	−14.1	−0.2
				Mobile		−15.3	−.6
Atlanta	−4.9	−15.0	−1.3	Newark	+2.0	−10.7	−3.0
Baltimore	+3.2	−12.9	−.7	New Haven	+4.5	−14.8	−.2
Birmingham	−.9	−10.0	−1.0	New Orleans	−1.1	−11.8	+1.6
Boston	+1.6	−13.8	−.6				
Bridgeport		−13.4	−2.0	New York	+6.3	−11.0	−2.5
				Norfolk		−13.2	−4.3
Buffalo	+3.8	−5.9	+1.1	Omaha	−9.6	−14.9	−.7
Butte		−18.3	+.4	Peoria		−11.6	+.8
Charleston, S. C	+.1	−15.0	−1.0	Philadelphia	+.5	−17.8	−1.9
Chicago	+2.3	−19.1	−5.3				
Cincinnati	−2.6	−18.6	+.9	Pittsburgh	−3.5	−13.6	−.7
				Portland, Me		−12.8	−.3
Cleveland	−8.2	−14.3	−.7	Portland, Oreg	−5.8	−12.1	+1.4
Columbus		−17.4	+.1	Providence	−.1	−15.7	−1.8
Dallas	−3.8	−14.7	+.7	Richmond	+1.1	−14.8	−.9
Denver	−5.2	−10.3	+.7				
				Rochester		−14.0	−1.5
Detroit	−8.5	−17.6	+.5	St. Louis	−1.8	−13.6	−1.6
Fall River	−2.7	−14.2	−.3	St. Paul		−14.9	−.6
Houston		−18.4	+.9	Salt Lake City	−13.1	−14.0	+1.2
Indianapolis	−6.6	−14.0	+1.0	San Francisco	+7.2	−6.9	+.2
Jacksonville	−9.1	−13.6	−.8	Savannah		−12.6	+.2
Kansas City	−1.7	−13.4	−.4	Scranton	+4.9	−13.8	−.3
Little Rock	−12.6	−15.9	−2.2	Seattle	−1.3	−12.8	+.6
Los Angeles	−6.2	−13.1	−.4	Springfield, Ill		−11.3	+.4
				Washington	+2.3	−16.3	−3.3
Louisville	−6.8	−13.6	+1.2				
Manchester	+.2	−9.6	−1.3	Hawaii:			
Memphis	−9.6	−13.9	−1.5	Honolulu		−15.9	−.5
Milwaukee	+.6	−12.6	−.7	Other localities		−16.0	−.9

Retail Prices of Coal in December, 1932

RETAIL prices of coal are secured in each of the 51 cities in which retail food prices are obtained. The prices quoted are for coal delivered to consumers but do not include charges for storing the coal in cellar or bins where an extra handling is necessary.

Average prices for the United States for bituminous coal and for stove and chestnut sizes of Pennsylvania anthracite are computed from the quotations received from retail dealers in all cities where these coals are sold for household use.

Table 1 shows the average prices of coal per ton of 2,000 pounds and index numbers for the United States on December 15, 1932, in comparison with the average prices on December 15, 1931, and November 15, 1932, together with the percentage change in the year and in the month.

TABLE 1.—AVERAGE RETAIL PRICE PER 2,000 POUNDS OF COAL FOR THE UNITED STATES, AND PER CENT OF CHANGE ON DECEMBER 15, 1932, COMPARED WITH DECEMBER 15, 1931, AND NOVEMBER 15, 1932

Article	Average retail price on—			Per cent of increase (+) or decrease (−) Dec. 15, 1932, compared with—	
	Dec. 15, 1931	Nov. 15, 1932	Dec. 15, 1932	Dec. 15, 1931	Nov. 15, 1932
Pennsylvania anthracite:					
Stove—					
Average price per 2,000 pounds	$15.00	$13.83	$13.87	−7.5	+0.3
Index (1913=100.0)	194.2	178.9	179.5		
Chestnut—					
Average price per 2,000 pounds	$14.97	$13.60	$13.65	−8.8	+.4
Index (1913=100.0)	189.1	171.9	172.5		
Bituminous:					
Average price per 2,000 pounds	$8.19	$7.59	$7.51	−8.3	−1.1
Index (1913=100.0)	150.8	139.7	138.3		

Table 2 shows average retail prices of coal on December 15, 1931, and November 15 and December 15, 1932, by cities. In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

TABLE 2.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON DECEMBER 15, 1931, AND NOVEMBER 15 AND DECEMBER 15, 1932

City, and kind of coal	1931	1932	
	Dec. 15	Nov. 15	Dec. 15
Atlanta, Ga.:			
Bituminous, prepared sizes	$6.53	$6.15	$6.22
Baltimore, Md.:			
Pennsylvania anthracite—			
Stove	14.00	13.25	13.25
Chestnut	13.75	12.75	12.75
Bituminous, run of mine—			
High volatile	7.57	6.86	6.86
Birmingham, Ala.:			
Bituminous, prepared sizes	6.36	5.03	5.00
Boston, Mass.:			
Pennsylvania anthracite—			
Stove	15.00	13.75	13.75
Chestnut	15.00	13.50	13.50
Bridgeport, Conn.:			
Pennsylvania anthracite—			
Stove	14.13	13.00	12.88
Chestnut	14.13	13.00	12.88
Buffalo, N. Y.:			
Pennsylvania anthracite—			
Stove	13.40	12.42	12.42
Chestnut	13.40	12.21	12.21
Butte, Mont.:			
Bituminous, prepared sizes	10.02	9.74	9.73
Charleston, S. C.:			
Bituminous, prepared sizes	9.50	8.67	8.67
Chicago, Ill.:			
Pennsylvania anthracite—			
Stove	16.75	15.75	15.75
Chestnut	16.75	15.50	15.50
Bituminous—			
Prepared sizes—			
High volatile	7.89	7.25	7.25
Low volatile	11.32	9.98	9.98
Run of mine—			
Low volatile	7.48	7.19	7.19
Cincinnati, Ohio:			
Bituminous—			
Prepared sizes—			
High volatile	5.75	5.25	5.35
Low volatile	8.00	7.50	7.50
Cleveland, Ohio:			
Pennsylvania anthracite—			
Stove	14.38	13.69	13.69
Chestnut	14.31	13.44	13.44
Bituminous—			
Prepared sizes—			
High volatile	6.56	5.64	5.64
Low volatile	9.11	8.36	8.32
Columbus, Ohio:			
Bituminous—			
Prepared sizes—			
High volatile	5.21	5.12	5.06
Low volatile	7.25	6.67	6.50
Dallas, Tex.:			
Arkansas anthracite, egg	-------	14.00	14.00
Bituminous, prepared sizes	10.83	10.75	10.75
Denver, Colo.:			
Colorado anthracite—			
Furnace, 1 and 2 mixed	14.75	14.50	14.50
Stove, 3 and 5 mixed	14.75	14.50	14.50
Bituminous, prepared sizes	8.16	7.06	7.02
Detroit, Mich.:			
Pennsylvania anthracite—			
Stove	14.50	13.38	13.33
Chestnut	14.50	13.17	13.17
Bituminous—			
Prepared sizes—			
High volatile	6.32	5.80	5.80
Low volatile	7.96	7.27	6.93
Run of mine—			
Low volatile	7.13	6.38	6.38
Fall River, Mass.:			
Pennsylvania anthracite—			
Stove	16.00	14.50	14.50
Chestnut	16.00	14.25	14.25
Houston, Tex.:			
Bituminous, prepared sizes	$11.00	$9.80	$10.00
Indianapolis, Ind.:			
Bituminous—			
Prepared sizes—			
High volatile	5.68	5.04	5.05
Low volatile	8.13	7.67	7.71
Run of mine—			
Low volatile	6.60	6.10	6.10
Jacksonville, Fla.:			
Bituminous, prepared sizes	10.00	9.00	8.50
Kansas City, Mo.:			
Arkansas anthracite—			
Furnace	11.38	10.75	10.63
Stove No. 4	12.83	12.25	12.17
Bituminous, prepared sizes	6.12	5.64	5.61
Little Rock, Ark.:			
Arkansas anthracite, egg	12.00	10.75	10.75
Bituminous, prepared sizes	9.22	8.39	8.39
Los Angeles, Calif.:			
Bituminous, prepared sizes	16.25	16.25	16.25
Louisville, Ky.:			
Bituminous—			
Prepared sizes—			
High volatile	5.24	4.67	4.64
Low volatile	8.38	7.38	7.25
Manchester, N. H.:			
Pennsylvania anthracite—			
Stove	16.33	14.83	14.83
Chestnut	16.33	14.83	14.83
Memphis, Tenn.:			
Bituminous, prepared sizes	6.89	5.67	5.72
Milwaukee, Wis.:			
Pennsylvania anthracite—			
Stove	16.05	15.05	15.05
Chestnut	16.05	14.80	14.80
Bituminous—			
Prepared sizes—			
High volatile	7.45	6.99	6.99
Low volatile	10.01	9.29	9.32
Minneapolis, Minn.:			
Pennsylvania anthracite—			
Stove	18.05	17.35	17.35
Chestnut	18.05	17.10	17.10
Bituminous—			
Prepared sizes—			
High volatile	9.83	9.57	9.56
Low volatile	12.54	12.22	11.85
Mobile, Ala.:			
Bituminous, prepared sizes	8.91	7.41	7.30
Newark, N. J.:			
Pennsylvania anthracite—			
Stove	13.55	12.38	12.25
Chestnut	13.55	12.13	12.00
New Haven, Conn.:			
Pennsylvania anthracite—			
Stove	14.90	13.90	14.00
Chestnut	14.90	13.90	14.00
New Orleans, La.:			
Bituminous, prepared sizes	9.93	8.57	8.57
New York, N. Y.:			
Pennsylvania anthracite—			
Stove	13.83	12.54	12.54
Chestnut	13.83	12.29	12.29
Norfolk, Va.:			
Pennsylvania anthracite—			
Stove	14.50	13.00	13.00
Chestnut	14.50	13.00	13.00
Bituminous—			
Prepared sizes—			
High volatile	7.00	6.50	6.50
Low volatile	9.00	8.00	8.00
Run of mine—			
Low volatile	7.00	6.50	6.50
Omaha, Nebr.:			
Bituminous, prepared sizes	8.80	8.50	8.48

TABLE 2.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON DECEMBER 15, 1931, AND NOVEMBER 15 AND DECEMBER 15, 1932—Continued

City, and kind of coal	1931	1932	
	Dec. 15	Nov. 15	Dec. 15
Peoria, Ill.:			
Bituminous, prepared sizes	$5.98	$5.98	$6.02
Philadelphia, Pa.:			
Pennsylvania anthracite—			
Stove	13.50	11.79	11.75
Chestnut	13.50	11.50	11.50
Pittsburgh, Pa.:			
Pennsylvania anthracite—			
Chestnut	14.00	12.88	13.00
Bituminous, prepared sizes	4.86	4.00	3.50
Portland, Me.:			
Pennsylvania anthracite—			
Stove	16.80	15.84	15.84
Chestnut	16.80	15.60	15.60
Portland, Oreg.:			
Bituminous, prepared sizes	12.29	11.74	11.52
Providence, R. I.:			
Pennsylvania anthracite—			
Stove	[1] 15.75	[1] 14.50	[1] 14.75
Chestnut	[1] 15.75	[1] 14.25	[1] 14.50
Richmond, Va.:			
Pennsylvania anthracite—			
Stove	14.50	13.50	13.50
Chestnut	14.50	13.50	13.50
Bituminous—			
Prepared sizes—			
High volatile	8.17	6.83	6.83
Low volatile	8.81	8.08	8.08
Run of mine—			
Low volatile	7.25	6.75	6.75
Rochester, N. Y.:			
Pennsylvania anthracite—			
Stove	14.38	13.25	13.38
Chestnut	14.38	13.00	13.13
St. Louis, Mo.:			
Pennsylvania anthracite—			
Stove	16.60	15.22	15.22
Chestnut	16.60	15.22	15.22
Bituminous, prepared sizes	5.73	5.45	5.47
St. Paul, Minn.:			
Pennsylvania anthracite—			
Stove	$18.05	$17.35	$17.35
Chestnut	18.05	17.10	17.10
Bituminous—			
Prepared sizes—			
High volatile	9.66	9.40	9.42
Low volatile	12.56	12.42	11.87
Salt Lake City, Utah:			
Bituminous, prepared sizes	7.63	7.33	7.17
San Francisco, Calif.:			
New Mexico anthracite—			
Cerillos egg	26.00	25.00	------
Colorado anthracite—			
Egg	25.50	24.50	------
Bituminous, prepared sizes	17.00	15.00	15.00
Savannah, Ga.:			
Bituminous, prepared sizes	[2] 8.87	[2] 8.53	[2] 8.12
Scranton, Pa.:			
Pennsylvania anthracite—			
Stove	10.30	9.27	9.28
Chestnut	10.28	9.00	9.00
Seattle, Wash.:			
Bituminous, prepared sizes	10.73	9.86	9.79
Springfield, Ill.:			
Bituminous, prepared sizes	4.34	3.79	3.79
Washington, D. C.:			
Pennsylvania anthracite—			
Stove	[3] 15.40	[3] 14.46	[3] 14.46
Chestnut	[3] 15.40	[3] 14.15	[3] 14.15
Bituminous—			
Prepared sizes—			
High volatile	[3] 8.46	[3] 8.29	[3] 8.29
Low volatile	[3] 11.04	[3] 10.21	[3] 10.21
Run of mine—			
Mixed	[3] 7.75	[3] 7.50	[3] 7.56

[1] The average price of coal delivered in bins is 50 cents higher than here shown. Practically all coal is delivered in bins.

[2] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

[3] Per ton of 2,240 pounds.

Retail Prices of Gas in the United States

THE net price per 1,000 cubic feet of gas for household use in each of 51 cities is published in June and December of each year. The average family consumption of manufactured gas is estimated to be 3,000 cubic feet per month. In cities where a service charge or a sliding scale is in operation, families using less than 3,000 cubic feet per month pay a somewhat higher rate than here shown; while those consuming more than this amount pay a lower rate. The figures here given are believed to represent quite closely the actual monthly cost of gas per 1,000 cubic feet to the average wage-earner's family.

From the prices quoted on manufactured gas, average net prices have been computed for all cities combined. Prices and index numbers showing the trend since April, 1913, are shown in Table 1. The index numbers are based on the price in April, 1913.

TABLE 1.—AVERAGE PRICE PER 1,000 CUBIC FEET OF MANUFACTURED GAS AND INDEX NUMBER IN SPECIFIED MONTHS OF EACH YEAR 1913 AND 1928 TO 1932 FOR THE UNITED STATES

Date	Average net price	Index (April, 1913=100.0)	Date	Average net price	Index (April, 1913=100.0)
1913—April	$0.95	100.0	1931—June	$1.18	124.2
1928—December	1.22	128.4	December	1.15	121.1
1929—December	1.21	127.4	1932—June	1.15	121.1
1930—December	1.18	124.2	December	1.15	121.1

Table 2 shows the net price of manufactured gas in June and December, 1932, by cities.

TABLE 2.—NET PRICE PER 1,000 CUBIC FEET OF MANUFACTURED GAS BASED ON A FAMILY CONSUMPTION OF 3,000 CUBIC FEET ON JUNE 15 AND DECEMBER 15, 1932, BY CITIES

City	June 15, 1932	Dec. 15, 1932	City	June 15, 1932	Dec. 15, 1932
Baltimore	$0.85	$0.85	Norfolk	$1.32	$1.28
Birmingham	.80	.80	Omaha	.79	.79
Boston	1.16	1.16	Philadelphia	.95	.88
Charleston, S. C.	1.45	1.45	Portland, Me.	1.42	1.42
Cleveland	1.25	1.25	Portland, Oreg.	1.17	1.17
Detroit	.77	.77	Providence	1.13	1.13
Fall River	1.14	1.14	Richmond	1.29	1.29
Indianapolis	.95	.95	Rochester	1.00	1.00
Jacksonville	1.92	1.92	St. Louis	[1] 1.10	[2] 1.30
Manchester	1.34	1.34	St. Paul	.90	.90
Milwaukee	.82	.82	Savannah	1.45	1.45
Minneapolis	.96	.96	Scranton	1.40	1.40
Newark	1.21	1.21	Seattle	1.43	1.43
New Haven	1.13	1.13	Washington	.93	.93
New York	1.23	1.23	Honolulu, T. H.	1.73	1.73

[1] Price based on 18 therms.

[2] Price based on 24 therms.

Table 3 shows by cities net prices in June and December, 1932, for natural gas, and for mixed manufactured and natural gas (preponderantly natural gas). These prices are based on an estimated average family consumption of 5,000 cubic feet per month.

TABLE 3.—NET PRICE PER 1,000 CUBIC FEET OF NATURAL GAS AND OF MIXED MANUFACTURED AND NATURAL GAS (PREPONDERANTLY NATURAL GAS) BASED ON A FAMILY CONSUMPTION OF 5,000 CUBIC FEET ON JUNE 15 AND DECEMBER 15, 1932, BY CITIES

City	June 15, 1932	Dec. 15, 1932	City	June 15, 1932	Dec. 15, 1932
Atlanta	$1.09	$1.09	Little Rock	$0.65	$0.65
Buffalo	.65	.65	Los Angeles	.84	.84
Butte	.70	.70	Louisville	.45	.38
Chicago	[1] 1.32	[1] 1.32	Memphis	.95	.95
Cincinnati	.75	.75	Mobile	1.24	1.24
Cleveland	.60	.60	New Orleans	.95	.95
Columbus	.48	.48	Peoria	[2] 1.95	[2] 1.95
Dallas	.79	.79	Pittsburgh	.60	.60
Denver	.99	.99	Salt Lake City	.99	.99
Houston	.75	.75	San Francisco	.97	.97
Kansas City	.95	.95	Springfield	[2] 2.00	[2] 2.00

[1] Price based on 40 therms which is the equivalent of 5,000 cubic feet of gas of a heating value of 800 B. t. u. per cubic foot.

[2] Price based on 50 therms which is the equivalent of 5,000 cubic feet of gas of a heating value of 1,000 B. t. u. per cubic foot.

Retail Prices of Electricity in the United States

Explanation of Prices

THE following table shows for 51 cities the net rates per kilowatt-hour of electricity used for household purposes in June and December, 1932. These rates are published in June and December of each year. For the cities having more than one tariff for domestic consumers the rates are shown for the schedule under which most of the residences are served.

Several cities have sliding scales based on a variable number of kilowatt-hours payable at each rate. The number of kilowatt-hours payable at each rate in these cities is determined for each customer according to the watts of installation, either in whole or in part, in the individual home. The number of watts so determined is called the customer's "demand."

In Baltimore the demand is the maximum normal rate of use of electricity in any half-hour period of time. It may be estimated or determined by the company from time to time according to the customer's normal use of electricity and may equal the total installation reduced to kilowatts.

In Buffalo the demand consists of two parts—lighting, 25 per cent of the total installation, but never less than 250 watts; and power, 2½ per cent of the capacity of any electric range, water heater, or other appliance of 1,000 watts or over and 25 per cent of the rated capacity of motors exceeding one-half horsepower but less than 1 horsepower. The installation is determined by inspection of premises.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE ON JUNE 15 AND DECEMBER 15, 1932, FOR 51 CITIES

City	Measure of consumption, per month	June 15, 1932	Dec. 15, 1932
		Cents	*Cents*
Atlanta	Service charge	100.0	100.0
	First 50 kilowatt-hours	5.0	5.0
	Next 150 kilowatt-hours	3.0	3.0
Baltimore	First 20 hours' use of demand [1]—minimum 25 kilowatt-hours	6.7	6.7
	Next kilowatt-hours equal to 8 times the consumption at the primary rate—minimum 200 kilowatt-hours	3.4	3.4
Birmingham	First 100 kilowatt-hours	7.7	7.7
Boston	First 2 kilowatt-hours per 100 square feet of floor area	7.5	7.5
	Next 70 kilowatt-hours	5.0	5.0
	Excess	3.0	3.0
Bridgeport	First 400 kilowatt-hours	5.3	5.3
Buffalo	First 60 hours' use of demand [1]	5.0	5.0
	Next 120 hours' use of demand [1]	4.0	4.0
	Excess	1.5	1.5
Butte	First 25 kilowatt-hours	8.0	8.0
	Next 25 kilowatt-hours	4.0	4.0
Charleston, S. C.	First 100 kilowatt-hours	9.0	9.0
Chicago	First 3 kilowatt-hours per room	7.0	7.0
	Next 3 kilowatt-hours per room	5.0	5.0
	Excess	3.0	3.0
Cincinnati	Service charge per room	10.0	10.0
	First 6 kilowatt-hours per room; minimum, 4 rooms	5.0	5.0
	Excess	3.0	3.0
Cleveland:			
Company A	First 40 kilowatt-hours	5.0	5.0
	Next 200 kilowatt-hours	4.0	4.0
Company B	Service charge	30.0	30.0
	First 600 kilowatt-hours	3.0	3.0
Columbus	First 50 kilowatt-hours	6.0	6.0
Dallas	First 800 kilowatt-hours	6.0	5.8
Denver	First 40 kilowatt-hours	6.0	6.0
	Excess	5.0	5.0

[1] For determination of demand see explanation of prices.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE ON JUNE 15 AND DECEMBER 15, 1932, FOR 51 CITIES—Continued

City	Measure of consumption, per month	June 15, 1932	Dec. 15, 1932
		Cents	*Cents*
Detroit	First 3 kilowatt-hours per active room; minimum, 3 rooms	9.0	9.0
	Next 50 kilowatt-hours	3.6	3.6
	Excess	2.3	2.3
Fall River	First 25 kilowatt-hours	8.0	8.0
	Next 75 kilowatt-hours	5.0	5.0
Houston	First 3 kilowatt-hours per room; minimum, 4 rooms	7.0	7.0
	Next 100 kilowatt-hours	4.0	4.0
Indianapolis	First 50 kilowatt-hours	6.3	6.3
	Next 50 kilowatt-hours	6.0	6.0
Jacksonville	First 500 kilowatt-hours	7.0	7.0
Kansas City	First 5 kilowatt-hours per active room; minimum, 3 rooms	6.5	6.5
	Next 5 kilowatt-hours per room	4.5	4.5
	Excess	2.5	2.5
Little Rock	First 4 rooms or less. Rooms in excess of 4, 10 cents each additional.	50.0	50.0
	First 6 kilowatt-hours per room	7.0	7.0
	Next 6 kilowatt-hours per room	5.0	5.0
Los Angeles	First 35 kilowatt-hours	4.8	4.8
	Next 140 kilowatt-hours	2.5	2.5
Louisville	First 30 kilowatt-hours (up to and including 5 rooms)	7.6	7.6
	Excess	3.0	3.0
Manchester	First step: 3 rooms, 15 kilowatt-hours; 4 rooms, 18 kilowatt-hours; 5 rooms, 21 kilowatt-hours; 6 rooms, 24 kilowatt-hours; 7 rooms, 27 kilowatt-hours; 8 rooms, 30 kilowatt-hours.	10.0	10.0
	Next step: Number of kilowatt-hours equal to the first step	6.0	6.0
Memphis	First 6 kilowatt-hours per room	8.0	7.0
	Next 6 kilowatt-hours per room	[2] 5.0	5.0
Milwaukee	First 9 kilowatt-hours for each of the first 6 active rooms and first 7 kilowatt-hours for each active room in addition to the the first 6.	6.2	6.2
	Next kilowatt-hours up to 150	2.9	2.9
	Excess	1.9	1.9
Minneapolis	First 3 kilowatt-hours per active room; minimum, 2 rooms	7.6	7.6
	Next 3 kilowatt-hours per active room	7.1	7.1
Mobile	Service charge for house of 3 rooms—consumption of 5 kilowatt-hours included, 10 cents extra for each additional room; not more than 10 rooms counted.	80.0	80.0
	Next 45 kilowatt-hours	5.0	5.0
Newark	First 20 kilowatt-hours	9.0	9.0
	Next 20 kilowatt-hours	8.0	8.0
New Haven	First 400 kilowatt-hours	5.3	5.3
New Orleans	Service charge	25.0	25.0
	First 20 kilowatt-hours	9.1	9.1
	Next 30 kilowatt-hours	7.8	7.8
New York:			
Company A	First 10 kilowatt-hours or less	[3] 100.0	[3] 100.0
	Next 5 kilowatt-hours	6.0	6.0
	Excess	5.0	5.0
Company B	All current	9.5	9.5
Company C	First 10 kilowatt-hours or less	[3] 100.0	[3] 100.0
	Next 5 kilowatt-hours	6.0	6.0
	Excess	5.0	5.0
Norfolk	First 100 kilowatt-hours	7.5	7.0
Omaha	First 10 kilowatt-hours per room	5.5	5.5
	Next 160 kilowatt-hours	3.0	3.0
Peoria	First 4 kilowatt-hours per active room	9.0	9.0
	Next 4 kilowatt-hours per active room	6.0	6.0
	Excess	3.0	3.0
Philadelphia:			
Company A	Minimum charge including use of first 10 kilowatt-hours	75.0	75.0
	Next 38 kilowatt-hours	6.0	6.0
Company B	First 20 kilowatt-hours	9.0	9.0
	Next 20 kilowatt-hours	8.0	8.0
Pittsburgh	First 15 kilowatt-hours	[4] 8.0	7.0
	Next 15 kilowatt-hours	[5] 5.5	5.0
	Next 20 kilowatt-hours	[6] 4.0	4.0
Portland, Me	First 3 rooms, 15 kilowatt-hours; 4 rooms, 18 kilowatt-hours; 5 rooms, 21 kilowatt-hours; 6 rooms, 24 kilowatt-hours; 7 rooms, 27 kilowatt-hours; 8 rooms, 30 kilowatt-hours.	8.0	8.0
	Next 3 rooms, 35 kilowatt-hours; 4 rooms, 42 kilowatt-hours; 5 rooms, 49 kilowatt-hours; 6 rooms, 56 kilowatt-hours; 7 rooms, 63 kilowatt-hours; 8 rooms, 70 kilowatt-hours.	5.0	5.0

[2] Excess.
[3] Deduction of 0.5 mill per kilowatt-hour under the coal clause is applicable to rates.
[4] First 10 kilowatt-hours.
[5] Next 20 kilowatt-hours.
[6] Next 30 kilowatt-hours.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE ON JUNE 15 AND DECEMBER 15, 1932, FOR 51 CITIES—Continued

City	Measure of consumption, per month	June 15, 1932	Dec. 15, 1932
		Cents	*Cents*
Portland, Oreg.:			
Company A	First 30 kilowatt-hours	5.5	5.5
	Next 40 kilowatt-hours	3.0	3.0
	Excess	1.8	1.8
Company B	First 30 kilowatt-hours	5.5	5.5
	Next 40 kilowatt-hours	3.0	3.0
	Excess	1.8	1.8
Providence	Service charge including 3 kilowatt-hours	50.0	50.0
	Next 60 kilowatt-hours	6.5	6.5
Richmond	First 100 kilowatt-hours	7.5	7.0
Rochester	Service charge including first 12 kilowatt-hours	100.0	100.0
	Next 48 kilowatt-hours	5.5	5.5
St. Louis:			
Company A	First 9 kilowatt-hours per active room	6.7	6.7
	Excess	2.4	2.4
Company B	First 4 rooms or less, 18 kilowatt-hours; 5 or 6 rooms, 27 kilowatt-hours; 7 or 8 rooms, 36 kilowatt-hours.	6.7	6.7
	Excess	2.4	2.4
St. Paul	First 3 kilowatt-hours per room, minimum 2 rooms	8.6	8.6
	Next 3 kilowatt-hours per room	7.1	7.1
	Excess	2.9	2.9
Salt Lake City	Service charge—consumption of 11 kilowatt-hours included	90.0	90.0
	Excess	7.0	7.0
San Francisco	Service charge	40.0	40.0
	First 30 kilowatt-hours for residence of 6 rooms. 5 kilowatt-hours added for each additional room.	4.5	4.5
	Next 140 kilowatt-hours	3.5	3.5
Savannah	Service charge	100.0	100.0
	First 50 kilowatt-hours	6.0	6.0
Scranton	Service charge	100.0	100.0
	All current	5.0	5.0
Seattle:			
Company A	First 40 kilowatt-hours	5.5	5.5
	Next 200 kilowatt-hours	2.0	2.0
Company B	First 40 kilowatt-hours	5.5	5.5
	Next 200 kilowatt-hours	2.0	2.0
Springfield, Ill.:			
Company A	First 30 kilowatt-hours	5.0	5.0
	Next 30 kilowatt-hours	4.0	4.0
	Next 40 kilowatt-hours	3.0	3.0
Company B	First 30 kilowatt-hours	5.0	5.0
	Next 30 kilowatt-hours	4.0	4.0
	Next 40 kilowatt-hours	3.0	3.0
Washington, D. C.	First 50 kilowatt-hours	3.9	3.9
	Next 50 kilowatt-hours	3.8	3.8
Honolulu, Hawaii	First 100 kilowatt-hours	7.5	7.5

Retail Prices of Food in the United States and in Certain Foreign Countries

THE index numbers of retail prices of food published by certain foreign countries have been brought together with those of the Bureau of Labor Statistics of the United States Department of Labor in the subjoined table, the base years in all cases being as given in the original reports. As stated in the table, the number of articles included in the index numbers for the different countries differs widely. These results, which are designed merely to show price trends and not actual differences in prices in the several countries should not, therefore, be considered as closely comparable with one another. In certain instances, also, the figures are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities and the localities included on successive dates. Indexes are shown for July of each year from 1926 to 1930, inclusive, and by months since January, 1931.

INDEX NUMBERS OF RETAIL FOOD PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES

Country	United States	Australia	Austria	Belgium	Bulgaria	Canada	China	Czechoslovakia
Computing agency	Bureau of Statistics	Bureau of Census and Statistics	Federal Statistics Bureau	Ministry of Industry, Labor, and Social Welfare	General Direction of Statistics	Department of Labor	National Tariff Commission	Central Bureau of Statistics
Number of localities	51	30	Vienna	59	12	60	Shanghai	Prague
Commodities included	42 foods	46 foods and groceries	Foods	Foods	Foods	29 foods	24 foods	Foods
Base=100	1913	1923–1927 (1,000)	July, 1914	1921	1926	1913	1926	July, 1914
1926								
July	157.0			184.9		151	101.3	
1927								
July	153.4			209.6		149	110.7	
1928								
July	152.8			203.8		147	93.2	
1929								
July	158.5	1,041	123	212.3		150	94.8	
1930								
July	144.0	958	119	205.5	87.3	149	130.0	119.0
1931								
January	132.8	876	109	195.1	75.0	134	104.9	107.0
February	127.0	864	106	186.8	74.2	129	122.0	105.6
March	126.4	854	105	183.1	72.1	124	117.4	104.2
April	124.0	851	104	180.1	70.7	121	98.7	106.2
May	121.0	840	104	176.6	71.6	116	98.7	107.0
June	118.3	833	108	176.5	71.4	111	99.6	109.3
July	119.0	811	110	174.8	71.5	110	96.4	107.9
August	119.7	805	109	171.5	69.1	112	116.5	102.2
September	119.4	804	109	172.9	67.3	109	124.4	104.3
October	119.1	805	111	170.2	68.6	107	110.0	103.1
November	116.7	812	110	167.9	71.3	107	103.2	99.6
December	114.3	809	110	160.7	70.5	107	97.0	99.1
1932								
January	109.3	814	111	156.5	68.1	105	98.2	98.0
February	105.3	829	110	151.3	66.9	100	122.8	95.6
March	105.0	825	109	148.2	66.9	99	114.2	100.1
April	103.7	824	107	144.3	66.3	98	99.1	97.3
May	101.3	812	108	144.8	66.0	94	98.4	100.8
June	100.1	803	113	143.8	66.2	93	107.3	101.4
July	101.0	800	110	144.4	66.2	92	101.4	97.5
August	100.8	796	109	142.9	64.5	96	103.6	94.4
September	100.3	792	110	150.8		95	102.6	97.6
October	100.4		110	155.4		96	94.9	100.0
November	99.4		109			97	87.9	102.3
December	98.7		109			96		

INDEX NUMBERS OF RETAIL FOOD PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Estonia	Finland	France	Germany	Hungary	India	Ireland	Italy
Computing agency	Bureau of Statistics	Ministry of Social Affairs	Commission of Cost of Living	Federal Statistical Bureau	Central Office of Statistics	Labor Office	Department of Industry and Commerce	Office Provincial of Economy
Number of localities	Tallin	21	Paris	72	Budapest	Bombay	105	Milan
Commodities	Foods	Foods	Foods	Foods	Foods	17 foods	Foods	Foods
Base=100	1913	January–June, 1914	January–June, 1914	October, 1913–July, 1914	1913	July, 1914	July, 1914	January–June, 1914
1926								
July	121	1,104.5	[1] 507	145.3	115.0	155	174	654.3
1927								
July	117	1,102.3	[1] 559	156.8	125.6	154	166	524.0
1928								
July	127	1,155.3	[1] 544	154.1	130.5	143	166	512.5
1929								
July	134	1,116.4	[1] 590	155.7	127.2	145	166	528.3
1930								
July	103	969.4	[1] 593	145.9	104.6	136	156	519.3
1931								
January	95	893.2	----------	133.5	93.5	111	----------	467.1
February	96	882.6	----------	131.0	94.1	106	151	462.8
March	96	878.8	641	129.6	96.3	103	----------	464.7
April	96	869.8	----------	129.2	95.7	104	----------	466.8
May	95	849.4	----------	129.9	96.6	102	139	460.0
June	93	842.4	642	130.9	96.5	101	----------	456.6
July	94	846.0	----------	130.4	98.9	100	----------	452.0
August	91	869.5	----------	126.1	99.7	100	143	444.1
September	87	844.3	607	124.9	99.6	100	----------	438.3
October	83	847.9	----------	123.4	96.8	100	----------	435.1
November	82	885.2	----------	121.8	94.1	100	155	436.8
December	80	918.8	555	119.9	93.0	101	----------	437.8
1932								
January	81	915.8	----------	116.1	91.8	103	----------	431.2
February	81	908.3	----------	113.9	89.9	102	151	432.5
March	83	911.2	561	114.4	89.8	103	----------	445.6
April	83	886.3	----------	113.4	89.9	99	----------	450.4
May	81	875.7	----------	112.7	93.4	99	144	441.8
June	80	871.0	567	113.4	93.3	99	----------	438.0
July	83	885.7	----------	113.8	92.1	102	----------	426.8
August	80	897.8	----------	111.8	93.8	102	134	411.1
September	79	891.4	534	110.5	92.9	101	----------	409.6
October	77	894.5	----------	109.6	----------	102	----------	423.4
November	76	919.8	----------	109.5	----------	103	135	428.0
December	----------	----------	----------	----------	----------	----------	----------	----------

[1] June.

INDEX NUMBERS OF RETAIL FOOD PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Netherlands	New Zealand	Norway	Poland	South Africa	Sweden	Switzerland	United Kingdom
Computing agency	Bureau of Statistics	Census and Statistics Office	Central Bureau of Statistics	Central Statistical Office	Office of Census and Statistics	Board of Social Welfare	Federal Labor Office	Ministry of Labor
Number of localities	Amsterdam	25	31	Warsaw	9	49	34	630
Commodities included.	Foods	59 foods	Foods	Foods	24 foods	Foods	Foods	21 foods
Base=100	1911–1913	1926–1930 (1,000)	July, 1914	1927	1914 (1,000)	July, 1914	June, 1914	July, 1914
1926								
July	[1] 168.1	[2] 1,026	198	----------	1,165	156	159	161
1927								
July	[1] 163.0	[2] 983	175	101.1	1,188	148	157	159
1928								
July	[1] 169.4	[2] 1,004	173	102.6	1,157	156	157	157
1929								
July	[1] 165.3	[2] 1,013	158	94.3	1,156	148	155	149
1930								
July	[1] 151.6	981	151	86.2	1,092	138	152	141
1931								
January	----------	910	146	72.2	1,081	132	148	138
February	----------	879	144	72.3	1,074	----------	146	136
March	139.9	856	143	73.5	1,071	----------	144	134
April	----------	851	141	76.4	1,073	130	142	129
May	----------	847	139	77.2	1,082	----------	141	129
June	140.6	839	138	75.9	1,064	----------	141	127
July	----------	824	140	72.9	1,043	127	140	130
August	----------	820	138	70.8	1,031	----------	139	128
September	136.9	812	136	70.3	1,022	----------	139	128
October	----------	834	136	68.3	1,026	128	138	128
November	----------	832	136	69.6	1,022	----------	137	130
December	125.5	835	136	69.1	1,004	----------	134	132
1932								
January	----------	827	135	65.0	990	127	132	131
February	----------	810	135	65.2	992	----------	129	131
March	118.8	792	135	64.5	993	----------	128	129
April	----------	797	134	68.2	987	125	128	126
May	----------	787	133	71.4	981	----------	126	125
June	119.2	778	133	68.1	963	----------	125	123
July	----------	761	134	63.1	944	124	124	125
August	----------	761	133	61.7	933	----------	123	123
September	119.7	758	134	60.9	927	----------	122	123
October	----------	765	133	59.2	927	125	123	125
November	----------	745	----------	58.7	----------	----------	122	125
December	----------	----------	----------	----------	----------	----------	----------	125

[1] June. [2] Year.

WHOLESALE PRICES

Index Numbers of Wholesale Prices, 1913 to December, 1932

THE following table presents the index numbers of wholesale prices by groups of commodities, by years, from 1913 to 1932, inclusive, and by months from January, 1931, to date:

INDEX NUMBERS OF WHOLESALE PRICES

[1926=100.0]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous	All commodities
1913	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.3	93.1	69.8
1914	71.2	64.7	70.9	54.6	56.6	80.2	52.7	81.4	56.8	89.9	68.1
1915	71.5	65.4	75.5	54.1	51.8	86.3	53.5	112.0	56.0	86.9	69.5
1916	84.4	75.7	93.4	70.4	74.3	116.5	67.6	160.7	61.4	100.6	85.5
1917	129.0	104.5	123.8	98.7	105.4	150.6	88.2	165.0	74.2	122.1	117.5
1918	148.0	119.1	125.7	137.2	109.2	136.5	98.6	182.3	93.3	134.4	131.3
1919	157.6	129.5	174.1	135.3	104.3	130.9	115.6	157.0	105.9	139.1	138.6
1920	150.7	137.4	171.3	164.8	163.7	149.4	150.1	164.7	141.8	167.5	154.4
1921	88.4	90.6	109.2	94.5	96.8	117.5	97.4	115.0	113.0	109.2	97.6
1922	93.8	87.6	104.6	100.2	107.3	102.9	97.3	100.3	103.5	92.8	96.7
1923	98.6	92.7	104.2	111.3	97.3	109.3	108.7	101.1	108.9	99.7	100.6
1924	100.0	91.0	101.5	106.7	92.0	106.3	102.3	98.9	104.9	93.6	98.1
1925	109.8	100.2	105.3	108.3	96.5	103.2	101.7	101.8	103.1	109.0	103.5
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	99.4	96.7	107.7	95.6	88.3	96.3	94.7	96.8	97.5	91.0	95.4
1928	105.9	101.0	121.4	95.5	84.3	97.0	94.1	95.6	95.1	85.4	96.7
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.2	94.3	82.6	95.3
1930	88.3	90.5	100.0	80.3	78.5	92.1	89.9	89.1	92.7	77.7	86.4
1931	64.8	74.6	86.1	66.3	67.5	84.5	79.2	79.3	84.9	69.8	73.0
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.5	75.1	64.4	64.8
1931:											
January	73.1	80.7	88.7	71.3	73.3	86.9	83.8	84.5	88.3	72.2	78.2
February	70.1	78.0	86.9	70.9	72.5	86.5	82.5	83.3	88.1	71.5	76.8
March	70.6	77.6	87.6	70.0	68.3	86.4	82.5	82.9	88.0	72.0	76.0
April	70.1	76.3	87.5	68.2	65.4	85.7	81.5	81.3	87.9	71.5	74.8
May	67.1	73.8	87.6	67.4	65.3	85.0	80.0	80.5	86.8	70.5	73.2
June	65.4	73.3	88.0	66.6	62.9	84.4	79.3	79.4	86.4	69.7	72.1
July	64.9	74.0	89.4	66.5	62.9	84.3	78.1	78.9	85.7	69.7	72.0
August	63.5	74.6	88.7	65.5	66.5	83.9	77.6	76.9	84.9	68.3	72.1
September	60.5	73.7	85.0	64.5	67.4	83.9	77.0	76.3	82.7	68.2	71.2
October	58.8	73.3	82.5	63.0	67.8	82.8	76.1	75.6	81.0	66.6	70.3
November	58.7	71.0	81.6	62.2	69.4	82.6	76.2	76.1	80.9	68.7	70.2
December	55.7	69.1	79.8	60.8	68.3	82.2	75.7	76.1	78.5	66.8	68.6
1932:											
January	52.8	64.7	79.3	59.6	67.9	81.8	74.8	75.7	77.7	65.6	67.3
February	50.6	62.5	78.3	59.5	68.3	80.9	73.4	75.5	77.5	64.7	66.3
March	50.2	62.3	77.3	58.0	67.9	80.8	73.2	75.3	77.1	64.7	66.0
April	49.2	61.0	75.0	56.1	70.2	80.3	72.5	74.4	76.3	64.7	65.5
May	46.6	59.3	72.5	54.3	70.7	80.1	71.5	73.6	74.8	64.4	64.4
June	45.7	58.8	70.8	52.7	71.6	79.9	70.8	73.1	74.7	64.2	63.9
July	47.9	60.9	68.6	51.5	72.3	79.2	69.7	73.0	74.0	64.3	64.5
August	49.1	61.8	69.7	52.7	72.1	80.1	69.6	73.3	73.6	64.6	65.2
September	49.1	61.8	72.2	55.6	70.8	80.1	70.5	72.9	73.7	64.7	65.3
October	46.9	60.5	72.8	55.0	71.1	80.3	70.7	72.7	73.7	64.1	64.4
November	46.7	60.6	71.4	53.9	71.4	79.6	70.7	72.4	73.7	63.7	63.9
December	44.1	58.3	69.6	53.0	69.3	79.4	70.8	72.3	73.6	63.4	62.6

INDEX NUMBERS OF SPECIFIED GROUPS OF COMMODITIES, DECEMBER, 1931, NOVEMBER AND DECEMBER, 1932, AND YEAR 1932

[1926=100.0]

Group	December, 1931	November, 1932	December, 1932	Year 1932
Raw materials	60.2	54.2	52.1	55.1
Semimanufactured articles	63.7	58.9	57.7	59.3
Finished products	73.3	69.3	68.4	70.3
Nonagricultural commodities	71.3	67.5	66.5	68.3
All commodities other than farm products and foods	72.3	69.8	69.0	70.2

Weekly Index Numbers of Wholesale Prices

A SUMMARIZATION of the weekly index numbers for the 10 major groups of commodities and for all commodities combined as issued during the month of December will be found in the following statement:

INDEX NUMBERS OF WHOLESALE PRICES FOR WEEKS OF DECEMBER 3, 10, 17, 24, AND 31, 1932

[1926=100.0]

Group	Week ending—				
	Dec. 3	Dec. 10	Dec. 17	Dec. 24	Dec. 31
All commodities	63.6	63.1	63.0	62.5	62.2
Farm products	46.8	44.7	44.7	44.3	43.7
Foods	60.7	58.7	58.8	58.4	57.9
Hides and leather products	71.1	70.8	69.3	69.1	69.1
Textile products	53.0	52.8	53.0	52.8	52.5
Fuel and lighting	71.9	71.6	71.5	69.5	69.0
Metals and metal products	79.5	79.4	79.3	79.3	79.3
Building materials	70.5	70.6	70.6	70.9	70.8
Chemicals and drugs	72.5	72.3	72.3	72.3	72.2
House-furnishing goods	72.5	73.5	73.5	73.5	73.5
Miscellaneous	63.5	63.3	63.2	63.2	63.1

Wholesale Price Trends During December, 1932

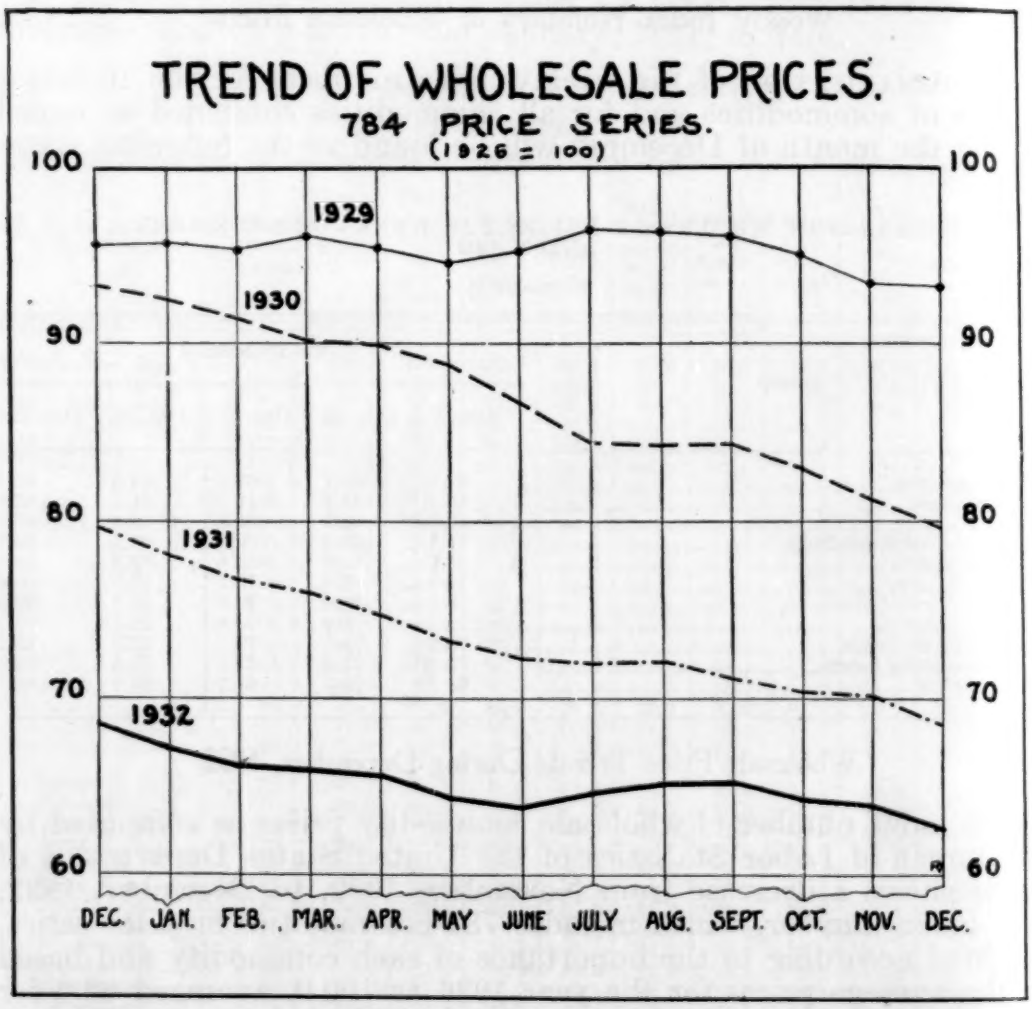
THE index number of wholesale commodity prices as computed by the Bureau of Labor Statistics of the United States Department of Labor shows a decrease from November, 1932, to December, 1932. This index number, which includes 784 commodities or price series, weighted according to the importance of each commodity and based on the average prices for the year 1926 as 100.0, averaged 62.6 for December as compared with 63.9 for November, showing a decrease of approximately 2 per cent between the two months. When compared with December, 1931, with an index number of 68.6 a decrease of nearly 9 per cent has been recorded in the 12 months.

In the group of farm products decreases in the average prices of barley, corn, oats, wheat, cows, steers, hogs, cotton, lemons, oranges, fresh milk in Chicago and New York, peanuts, and wool caused the group as a whole to decrease slightly more than 5½ per cent from the previous month. Increases were recorded in the average prices of rye, calves, sheep, live poultry, alfalfa, hay, hops, onions, and potatoes.

Among foods price decreases during the month were reported for lard, corn meal, dried fruits, cured and fresh beef, fresh pork, bacon, dressed poultry, coco beans, granulated and raw sugar, and coconut

and cottonseed oils. On the other hand butter, cheese, evaporated milk, rye and wheat flour, bananas, fresh lamb, mutton, and veal averaged higher than in the month before. The group as a whole decreased about 3¾ per cent in December when compared with November.

The hides and leather products group decreased approximately 2½ per cent during the month due to further decreases in boots and shoes, hides and skins, and leather. Other leather products showed no change in the average prices for the month. Textile products as a whole decreased slightly more than 1½ per cent from November to



December due to declining prices for cotton goods, knit goods, silk and rayon, woolen and worsted goods, and other textile products. The subgroup of clothing showed a slight increase.

In the group of fuel and lighting materials sharp reductions in the average prices of crude petroleum and petroleum products and smaller reductions in all other subgroups caused this group as a whole to decline nearly 3 per cent during the month.

Metals and metal products as a whole showed a downward tendency for December due to decreases in agricultural implements, iron and steel products, and nonferrous metals. Motor vehicles recorded a slight advance during the month, while no change took place in the average prices of plumbing and heating fixtures. In the group of

building materials the average price of cement moved upward during the month. Structural steel and other building materials showed no change in average prices, while brick and tile, lumber, and paint and paint materials showed further slight recessions. The group as a whole showed a fractional increase for the month.

Fertilizer materials, chemicals and drugs, and pharmaceuticals showed slight recessions during December causing the group to decline practically one-tenth of 1 per cent from the month before. Mixed fertilizer prices showed no change during the month. As a whole the house-furnishing-goods group showed a fractional decrease from the previous month, both furnishings and furniture shared in the slight decline.

The group of miscellaneous commodities decreased approximately one-half of 1 per cent between November and December due to declining prices of cattle feed, paper and pulp, crude rubber, and other miscellaneous articles with no change taking place in the average prices for automobile tires and tubes.

The December averages for all the special groups of commodities were below those for November, ranging from slightly more than 1 per cent in the case of all commodities other than farm products and foods to approximately 4 per cent in the case of raw materials.

Between November and December price decreases took place in 239 instances, increases in 91 instances, while in 454 instances no change in price occurred.

The all-commodities index for the year 1932 stands at 64.8 as compared with 73.0 for the year 1931, showing a decrease of a little more than 11 per cent during the year.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

Groups and subgroups	December, 1931	November, 1932	December, 1932	Purchasing power of the dollar December, 1932
All commodities	68.6	63.9	62.6	$1.597
Farm products	55.7	46.7	44.1	2.268
Grains	47.0	33.2	31.7	3.155
Livestock and poultry	51.7	41.9	38.7	2.584
Other farm products	61.2	53.9	51.3	1.949
Foods	69.1	60.6	58.3	1.715
Butter, cheese, and milk	79.8	62.3	59.5	1.681
Cereal products	72.2	62.7	61.7	1.621
Fruits and vegetables	63.5	52.4	52.8	1.894
Meats	63.2	53.7	49.4	2.024
Other foods	67.2	67.7	66.1	1.513
Hides and leather products	79.8	71.4	69.6	1.437
Boots and shoes	89.2	84.2	83.8	1.193
Hides and skins	48.8	46.1	41.7	2.398
Leather	78.6	61.9	59.2	1.689
Other leather products	99.7	81.9	81.9	1.221
Textile products	60.8	53.9	53.0	1.887
Clothing	70.8	62.2	62.5	1.600
Cotton goods	56.4	53.6	51.7	1.934
Knit goods	58.5	51.0	49.3	2.028
Silk and rayon	39.0	29.5	29.3	3.413
Woolen and worsted goods	63.9	55.3	54.2	1.845
Other textile products	71.3	67.1	66.6	1.502
Fuel and lighting materials	68.3	71.4	69.3	1.443
Anthracite coal	94.8	88.8	88.7	1.127
Bituminous coal	83.8	80.4	80.2	1.247
Coke	81.1	75.6	75.3	1.328
Electricity	104.1	103.1	[1]	
Gas	98.2	100.0	[1]	
Petroleum products	39.6	48.2	45.0	2.222
Metals and metal products	82.2	79.6	79.4	1.259
Agricultural implements	85.5	84.6	84.5	1.183
Iron and steel	81.0	79.4	78.8	1.269
Motor vehicles	95.2	92.7	93.0	1.075
Nonferrous metals	53.8	49.1	48.3	2.070
Plumbing and heating	79.9	67.5	67.5	1.481
Building materials	75.7	70.7	70.8	1.412
Brick and tile	80.0	75.4	75.1	1.332
Cement	74.6	79.0	81.1	1.233
Lumber	65.8	56.6	56.5	1.770
Paint and paint materials	76.6	68.5	68.1	1.468
Plumbing and heating	79.9	67.5	67.5	1.481
Structural steel	81.7	81.7	81.7	1.224
Other building materials	81.5	80.1	80.1	1.248
Chemicals and drugs	76.1	72.4	72.3	1.383
Chemicals	80.8	79.7	79.7	1.255
Drugs and pharmaceuticals	61.0	55.0	54.7	1.828
Fertilizer materials	70.1	63.5	63.1	1.585
Mixed fertilizers	77.1	65.6	65.6	1.524
House-furnishing goods	78.5	73.7	73.6	1.359
Furnishings	76.6	74.7	74.7	1.339
Furniture	80.6	72.7	72.7	1.376
Miscellaneous	66.8	63.7	63.4	1.577
Automobile tires and tubes	40.8	44.6	44.6	2.242
Cattle feed	53.9	40.8	37.1	2.695
Paper and pulp	80.8	73.4	73.0	1.370
Rubber, crude	9.5	7.2	6.8	14.706
Other miscellaneous	85.9	81.5	81.3	1.230
Raw materials	60.2	54.2	52.1	1.919
Semimanufactured articles	63.7	58.9	57.7	1.733
Finished products	73.3	69.3	68.4	1.462
Nonagricultural commodities	71.3	67.5	66.5	1.504
All commodities other than farm products and foods	72.3	69.8	69.0	1.449

[1] Data not yet available.

COST OF LIVING

Changes in Cost of Living in the United States

THE cost of living index number for the United States in December, 1932, is 132.1, a decrease of 2.7 per cent during the 6-month period from June, 1932, to December, 1932. It is now 7.2 per cent lower than in December, 1917, 15 years ago, and 39.0 per cent below the peak of June, 1920.

The decline in the 6-month current period ending December, 1932, averaged 1.4 per cent for food, 4.9 per cent for clothing, 7.7 per cent for rents, 0.1 per cent for fuel and light, 3.9 per cent for house-furnishing goods, and 1.4 per cent for miscellaneous items.

The December, 1932, cost-of-living index number shows that the food group, which represents the largest expenditure for the wage-earning family, is now 1.3 per cent lower than it was in the base period, 1913. This is the only group that represented a decrease from the base period. Clothing is 21.5 per cent higher than in 1913; rent, 18.0 per cent higher; fuel and light, 56.9 per cent higher; house-furnishing goods, 47.4 per cent higher; while the group of miscellaneous items is 99.3 per cent higher, or almost double the base period of 1913.

The figures for the United States are based on prices of food in 51 cities and for other items in 32 cities.

Considering the changes that occurred in the 32 cities from June, 1932, to December, 1932, the food group declined in 21 cities, the decreases ranging from 0.6 to 5.4 per cent. Increases were reported in 11 cities ranging from 0.1 to 4.4 per cent.

The clothing group for the current period declined in all of the 32 cities, the decreases ranging from 0.7 to 10.0 per cent.

Rents dropped in all of the 32 cities, and these decreases ranged from 2.2 to 16.3 per cent.

The fuel-and-light group decreased in 14 cities, the decreases ranging from 0.4 to 9.7 per cent. Eighteen cities reported increases ranging from 0.2 to 5.5 per cent. The coal price during the month of December was the principal item in this group to show an increase.

House-furnishing goods declined in 31 cities, the decreases ranging from 0.4 to 8.8 per cent. In only one city a slight increase of 0.2 per cent was reported, occasioned by an advance in the price of sheets and stoves.

The miscellaneous group declined in 30 cities, the drops ranging from 0.2 to 3.9 per cent. Increases in two cities were reported, 1.2 per cent caused by an advance in motion-picture prices in one city and 1.8 per cent caused by an increase in laundry items in the other city.

Food prices are obtained monthly by mail from 15 to 25 grocers, meat dealers, bakers, and dairymen in each city. Fuel and light prices are also obtained from regular correspondents. Gas and

electricity figures are furnished by public utilities and coal and wood prices are reported by 10 to 15 firms in each city. All other data are secured by personal visits of representatives of the bureau. These items include prices on 32 articles of men's and boys' clothing, 38 articles of women's and girls' clothing, including silk, wool, and cotton yard goods used in making dresses and aprons for the women and children, and 28 furniture and house-furnishing articles. Rentals ranging from 500 to 2,500 unfurnished houses and apartments in each city are secured from real estate agencies. The miscellaneous group includes 14 items. The average price of each item is weighted according to its importance in the family budget. Four quotations are procured on each article in every city except New York, where five items are obtained. On account of the nature of some of the items included in the miscellaneous group, such as street-car fares, newspapers, and telephone rates, it is impossible to obtain four quotations.

The initial date of comparison in the following tables for 19 cities is December, 1914, and for 13 cities it is December, 1917. Sufficient data, however, were available to make it possible to carry the composite figures for the United States as a whole back to 1913.

Table 1 shows the index numbers which represent changes in the six groups of items entering into living costs in the United States from 1913 to December, 1932.

TABLE 1.—INDEX NUMBERS SHOWING CHANGES IN COST OF GROUPS OF ITEMS ENTERING INTO COST OF LIVING IN THE UNITED STATES, 1913 TO DECEMBER, 1932

Date	Index numbers						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Average, 1913	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
December, 1914	105.0	101.0	100.0	101.0	104.0	103.0	103.0
December, 1915	105.0	104.7	101.5	101.0	110.6	107.4	105.1
December, 1916	126.0	120.0	102.3	108.4	127.8	113.3	118.3
December, 1917	157.0	149.1	100.1	124.1	150.6	140.5	142.4
December, 1918	187.0	205.3	109.2	147.9	213.6	165.8	174.4
June, 1919	184.0	214.5	114.2	145.6	225.1	173.2	177.3
December, 1919	197.0	268.7	125.3	156.8	263.5	190.2	199.3
June, 1920	219.0	287.5	134.9	171.9	292.7	201.4	216.5
December, 1920	178.0	258.5	151.1	194.9	285.4	208.2	200.4
May, 1921	144.7	222.6	159.0	181.6	247.7	208.8	180.4
September, 1921	153.1	192.1	160.1	180.9	224.7	207.8	177.3
December, 1921	149.9	184.4	161.4	181.1	218.0	206.8	174.3
March, 1922	138.7	175.5	160.9	175.8	206.2	203.3	166.9
June, 1922	140.7	172.3	160.9	174.2	202.9	201.5	166.4
September, 1922	139.7	171.3	161.1	183.6	202.9	201.1	166.3
December, 1922	146.6	171.5	161.9	186.4	208.2	200.5	169.5
March, 1923	141.9	174.4	162.4	186.2	217.6	200.3	168.8
June, 1923	144.3	174.9	163.4	180.6	222.2	200.3	169.7
September, 1923	149.3	176.5	164.4	181.3	222.4	201.1	172.1
December, 1923	150.3	176.3	166.5	184.0	222.4	201.7	173.2
March, 1924	143.7	175.8	167.0	182.2	221.3	201.1	170.4
June, 1924	142.4	174.2	168.0	177.3	216.0	201.1	169.1
September, 1924	146.8	172.3	168.0	179.1	214.9	201.1	170.6
December, 1924	151.5	171.3	168.2	180.5	216.0	201.7	172.5
June, 1925	155.0	170.6	167.4	176.5	214.3	202.7	173.5
December, 1925	165.5	169.4	167.1	186.9	214.3	203.5	177.9
June, 1926	159.7	168.2	165.4	180.7	210.4	203.3	174.8
December, 1926	161.8	166.7	164.2	188.3	207.7	203.9	175.6

TABLE 1.—INDEX NUMBERS SHOWING CHANGES IN COST OF GROUPS OF ITEMS ENTERING INTO COST OF LIVING IN THE UNITED STATES, 1913 TO DECEMBER, 1932—Continued

Date	Index numbers						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
June, 1927	158.5	164.9	162.1	180.8	205.2	204.5	173.4
December, 1927	155.9	162.9	160.2	183.2	204.6	205.1	172.0
June, 1928	152.6	162.6	157.6	177.2	201.1	205.5	170.0
December, 1928	155.8	161.9	155.9	181.3	199.7	207.1	171.3
June, 1929	154.8	161.3	153.7	175.2	198.5	207.3	170.2
December, 1929	158.0	160.5	151.9	178.7	197.7	207.9	171.4
June, 1930	147.9	158.9	149.6	172.8	195.7	208.5	166.6
December, 1930	137.2	153.0	146.5	175.0	188.3	208.1	160.7
June, 1931	118.3	146.0	142.0	165.4	177.0	206.6	150.3
December, 1931	114.3	135.5	136.2	168.0	167.1	205.4	145.8
June, 1932	100.1	127.8	127.8	157.1	153.4	202.1	135.7
December, 1932	98.7	121.5	118.0	156.9	147.4	199.3	132.1

Table 2 shows the per cent of decrease in the price of electricity in 32 cities since December, 1913. In the 6-month period from June, 1932, to December, 1932, there was no change in this utility, the decline from 1913 to December, 1932, remaining 21.0, the same per cent as reported in June, 1932.

TABLE 2.—PER CENT OF DECREASE IN THE PRICE OF ELECTRICITY AT SPECIFIED PERIODS AS COMPARED WITH DECEMBER, 1913

Date	Per cent of decrease from December, 1913	Date	Per cent of decrease from December, 1913	Date	Per cent of decrease from December, 1913
December, 1914	3.7	September, 1922	6.2	December, 1926	11.1
December, 1915	6.2	December, 1922	7.4	June, 1927	12.3
December, 1916	8.6	March, 1923	7.4	December, 1927	12.3
December, 1917	1.1	June, 1923	7.4	June, 1928	13.6
December, 1918	6.2	September, 1923	8.6	December, 1928	14.8
June, 1919	6.2	December, 1923	8.6	June, 1929	17.3
December, 1919	7.4	March, 1924	8.6	December, 1929	17.3
June, 1920	7.4	June, 1924	8.6	June, 1930	18.5
December, 1920	4.9	September, 1924	8.6	December, 1930	18.5
May, 1921	4.9	December, 1924	8.6	June, 1931	19.8
September, 1921	4.9	June, 1925	9.9	December, 1931	19.8
December, 1921	4.9	December, 1925	9.9	June, 1932	21.0
March, 1922	4.9	June, 1926	11.1	December, 1932	21.0
June, 1922	6.2				

Table 3 shows the per cent of decrease of cost of living in each of the 32 cities in the United States from June, 1920, December, 1929, December, 1931, and June, 1932, to December, 1932. In the 12-year period from June, 1920, the peak of prices, to December, 1932, the decreases ranged from 34.2 per cent to 46.7 per cent and averaged 39.0 per cent for the United States. In the 3-year period from December, 1929, to December, 1932, the decreases ranged from 19.8 per cent to 29.3 per cent and averaged 22.9 per cent for the United States. For the year period from December, 1931, to December, 1932, the decreases ranged from 6.7 to 12.8 per cent and averaged 9.4 per cent

for the United States. Comparing the recent 6-month period ending December, 1932, the decreases ranged from 0.9 to 5.1 per cent and averaged 2.7 per cent for the United States.

TABLE 3.—PER CENT OF DECREASE IN COST OF LIVING IN SPECIFIED CITIES FROM JUNE, 1920, DECEMBER, 1929, DECEMBER, 1931, AND JUNE, 1932, TO DECEMBER, 1932

City	Per cent of decrease from—				City	Per cent of decrease from—			
	June, 1920, to December, 1932	December, 1929, to December, 1932	December, 1931, to December, 1932	June, 1932, to December, 1932		June, 1920, to December, 1932	December, 1929, to December, 1932	December, 1931, to December, 1932	June, 1932, to December, 1932
Atlanta	42.3	25.5	9.8	4.4	Mobile	39.2	23.6	8.8	1.2
Baltimore	35.6	21.1	9.0	2.1	New Orleans	34.6	21.9	7.5	.9
Birmingham	42.7	27.3	10.1	2.8	New York	36.0	20.8	7.8	3.2
Boston	38.1	22.6	9.5	1.7	Norfolk	38.6	21.3	8.3	2.4
Buffalo	36.9	22.3	7.9	3.4	Philadelphia	37.3	23.5	11.0	3.4
Chicago	40.3	26.2	12.3	3.7	Pittsburgh	36.8	23.5	9.9	2.5
Cincinnati	35.1	22.4	9.7	2.3	Portland, Me.	36.3	20.2	8.8	3.4
Cleveland	37.9	21.5	8.7	4.1	Portland, Oreg.	40.1	20.8	8.9	2.1
Denver	39.0	21.0	8.6	2.1	Richmond	37.1	21.3	9.9	3.1
Detroit	46.7	29.3	11.4	4.0	St. Louis	37.8	23.9	8.7	3.2
Houston	42.0	26.8	12.8	5.1	San Francisco	34.2	19.8	6.7	1.5
Indianapolis	39.7	23.8	8.8	3.1	Savannah	41.7	22.4	8.9	2.4
Jacksonville	41.1	23.0	9.2	3.0	Scranton	34.3	21.8	8.2	1.8
Kansas City	40.7	19.9	9.5	2.2	Seattle	36.5	20.7	9.7	3.3
Los Angeles	34.5	21.7	9.0	2.3	Washington	37.5	21.0	9.5	2.9
Memphis	38.8	23.1	9.9	3.6	Average, United States	39.0	22.9	9.4	2.7
Minneapolis	35.5	20.4	9.4	2.7					

The Bureau of Labor Statistics is now publishing only initial figures for the individual cities covering the periods of high prices and for the 6-month periods beginning with June, 1928, through December, 1932. Data on all intervening periods can be obtained from the Monthly Labor Review of August, 1931.

The per cent of change in the cost of living for 19 cities for each of the six groups of items from December, 1914, to December, 1932, is given in Table 4.

TABLE 4.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1932

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Baltimore, Md.:							
December, 1915	[1] 4.1	2.7	[1] 0.2	0.5	5.6	[1] 1.4	[1] 1.4
June, 1920	110.9	191.3	41.6	57.6	191.8	111.4	114.3
December, 1920	75.6	159.5	49.5	79.0	181.9	112.9	96.8
June, 1928	52.9	68.1	66.7	82.0	103.2	118.7	73.7
December, 1928	51.9	68.3	65.7	87.3	102.0	120.9	73.9
June, 1929	53.8	67.5	65.2	80.7	100.4	119.8	73.8
December, 1929	56.7	67.2	63.4	86.1	99.4	120.2	75.1
June, 1930	47.2	65.9	62.4	80.9	95.6	127.0	71.6
December, 1930	36.9	58.1	61.3	85.6	86.0	126.5	65.8
June, 1931	18.7	51.6	59.8	78.7	72.1	125.6	55.8
December, 1931	14.4	41.9	56.3	83.9	66.8	124.5	51.8
June, 1932	[1] 1.0	32.7	51.5	67.9	55.6	119.1	41.0
December, 1932	[1] .4	26.5	37.9	75.1	48.0	117.1	38.1

[1] Decrease.

TABLE 4.—CHANGES IN COST OF LIVING IN 19 CITIES DECEMBER, 1914, TO DECEMBER, 1932—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Boston, Mass.:							
December, 1915	[1] 0.3	6.6	[1] 0.1	1.1	8.4	1.6	1.6
June, 1920	105.0	211.1	16.2	83.6	233.7	91.8	110.7
December, 1920	74.4	192.7	25.8	106.0	226.4	96.6	97.4
June, 1928	45.0	80.2	52.2	90.4	123.1	90.2	64.8
December, 1928	50.5	80.4	51.6	96.7	118.4	94.4	68.2
June, 1929	47.1	79.0	50.7	87.7	118.4	92.1	65.4
December, 1929	53.2	79.0	49.2	94.3	118.0	92.9	68.4
June, 1930	43.7	78.3	47.1	88.7	113.6	92.5	63.1
December, 1930	36.7	72.6	44.7	95.7	107.6	92.3	59.2
June, 1931	14.6	66.7	41.8	85.3	97.4	92.3	47.1
December, 1931	12.8	58.0	38.4	86.0	89.9	91.3	44.1
June, 1932	[1] 4.8	49.5	35.1	70.7	72.6	87.9	32.6
December, 1932	[1] 2.8	40.5	28.1	73.1	59.3	85.5	30.4
Buffalo, N. Y.:							
December, 1915	2.4	8.9	1.2	3.2	7.1	3.5	3.5
June, 1920	115.7	210.6	46.6	69.8	199.7	101.9	121.5
December, 1920	78.5	168.7	48.5	74.9	189.2	107.4	101.7
June, 1928	51.6	71.7	72.7	126.7	105.4	117.8	78.7
December, 1928	54.9	72.4	69.4	128.5	104.2	117.8	79.6
June, 1929	54.6	71.2	67.0	123.2	104.4	118.9	78.8
December, 1929	57.9	71.0	66.5	127.0	104.2	119.1	80.0
June, 1930	47.2	70.0	65.0	122.9	105.0	120.4	76.0
December, 1930	35.8	62.0	62.5	126.7	96.4	118.4	69.4
June, 1931	16.0	52.3	56.5	121.3	84.0	116.4	58.3
December, 1931	6.7	45.4	50.4	124.8	72.4	114.2	51.8
June, 1932	1.3	37.0	39.7	113.8	56.9	110.8	44.7
December, 1932	.5	25.6	29.4	117.4	51.9	106.4	39.8
Chicago, Ill.:							
December, 1915	2.7	7.5	[1] .1	[1] .9	5.9	3.0	3.0
June, 1920	120.0	205.3	35.1	62.4	215.9	87.5	114.6
December, 1920	70.5	158.6	48.9	83.5	205.8	96.5	93.3
June, 1928	59.4	53.3	86.8	51.2	96.0	98.5	71.5
December, 1928	62.4	52.1	83.6	56.5	97.2	101.7	73.1
June, 1929	63.0	51.5	80.3	50.7	97.4	101.7	72.3
December, 1929	67.3	49.2	77.2	56.7	97.0	102.9	73.7
June, 1930	56.9	47.7	75.1	51.5	92.1	104.7	69.1
December, 1930	45.6	37.2	71.1	54.8	82.7	104.5	62.2
June, 1931	26.7	30.3	64.4	49.5	67.7	103.3	51.8
December, 1931	23.1	19.5	56.5	52.5	57.8	98.6	46.2
June, 1932	5.4	11.0	38.8	42.1	37.1	94.2	33.1
December, 1932	[1] .3	7.6	24.9	44.1	34.6	93.0	28.2
Cleveland, Ohio:							
December, 1915	1.4	2.0	.1	.3	4.7	1.4	1.4
June, 1920	118.7	185.1	47.3	90.3	186.5	117.9	120.3
December, 1920	71.7	156.0	80.0	94.5	176.8	134.0	107.3
June, 1928	50.6	65.7	61.8	161.3	90.2	118.1	76.3
December, 1928	48.5	63.9	60.5	163.7	89.2	119.0	75.4
June, 1929	50.6	63.9	59.5	160.5	89.4	117.9	75.7
December, 1929	47.0	63.2	58.9	163.1	88.8	118.3	74.3
June, 1930	42.0	61.6	56.4	160.2	87.7	125.3	73.3
December, 1930	29.5	52.1	55.3	162.5	75.5	124.2	66.2
June, 1931	9.6	41.8	48.6	158.0	64.4	118.6	54.4
December, 1931	4.1	36.8	41.0	159.5	58.3	119.0	50.0
June, 1932	[1] 6.4	30.2	29.9	156.4	41.6	121.2	42.7
December, 1932	[1] 10.3	25.3	18.2	155.4	36.1	114.8	36.9
Detroit, Mich.:							
December, 1915	4.1	2.3	2.1	1.6	8.7	3.5	3.5
June, 1920	132.0	208.8	68.8	74.9	206.7	141.3	136.0
December, 1920	75.6	176.1	108.1	104.5	184.0	144.0	118.6
June, 1928	53.5	64.3	79.1	73.2	81.4	128.8	76.4
December, 1928	55.7	62.5	78.2	77.0	81.2	131.1	77.4
June, 1929	59.2	62.5	77.3	72.8	81.2	130.4	78.1
December, 1929	57.9	61.7	77.8	77.5	79.4	130.6	77.8
June, 1930	47.6	59.6	73.2	67.2	76.7	131.1	72.3
December, 1930	32.6	50.2	60.0	71.0	66.5	125.1	61.6
June, 1931	14.7	44.0	45.4	61.4	58.8	123.7	50.4
December, 1931	7.7	33.1	31.0	59.3	49.3	118.1	41.9
June, 1932	[1] 7.7	26.8	17.8	46.2	32.7	116.1	30.9
December, 1932	[1] 11.3	25.9	1.1	47.2	32.2	110.7	25.7

[1] Decrease.

TABLE 4.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER 1914, TO DECEMBER, 1932—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Houston, Tex.:							
December, 1915	[1] 1.0	2.7	[1] 2.3	[1] 0.9	6.1	[1] 0.3	[1] 0.3
June, 1920	107.5	211.3	25.3	55.1	213.9	90.4	112.2
December, 1920	83.2	187.0	35.1	74.2	208.2	103.9	104.0
June, 1928	45.6	85.8	30.4	29.2	132.0	89.7	64.1
December, 1928	51.4	86.4	30.1	33.6	131.1	89.3	66.4
June, 1929	51.1	84.7	27.5	29.1	129.0	92.1	66.1
December, 1929	55.8	84.1	27.1	31.8	129.5	92.5	68.0
June, 1930	43.0	82.8	25.7	25.3	127.2	92.5	62.3
December, 1930	32.8	65.6	23.8	24.0	113.8	92.3	54.7
June, 1931	11.2	63.8	20.0	18.9	110.0	92.1	45.2
December, 1931	9.5	52.5	12.3	16.8	99.1	92.9	41.1
June, 1932	[1] 7.5	42.0	[1] .2	11.8	87.0	88.5	29.6
December, 1932	[1] 10.5	30.4	[1] 11.1	5.9	75.0	83.2	23.0
Jacksonville, Fla.:							
December, 1915	[1] .3	10.5	[1] 6.9	[2]	15.1	1.3	1.3
June, 1920	90.1	234.0	28.9	72.6	224.2	102.8	116.5
December, 1920	65.6	209.3	34.1	92.6	222.3	105.6	106.2
June, 1928	36.4	85.0	32.3	74.4	119.2	105.1	68.3
December, 1928	40.0	84.6	27.4	78.9	119.6	105.1	69.1
June, 1929	37.4	83.9	19.8	77.1	117.8	105.1	66.9
December, 1929	40.8	82.4	13.2	75.0	113.9	101.0	65.8
June, 1930	31.9	80.4	3.2	70.6	110.5	102.4	61.0
December, 1930	28.4	71.9	[1] 1.5	66.3	103.3	101.0	56.9
June, 1931	8.4	65.4	[1] 5.9	64.0	89.9	100.2	47.4
December, 1931	1.4	49.7	[1] 9.7	61.0	81.7	97.6	40.5
June, 1932	[1] 10.7	41.3	[1] 15.8	53.4	62.1	92.9	31.6
December, 1932	[1] 12.5	35.2	[1] 20.7	49.6	55.6	88.1	27.6
Los Angeles, Calif.:							
December, 1915	[1] 4.1	2.8	[1] 2.7	.4	6.3	[1] 1.9	[1] 1.9
June, 1920	90.8	184.5	42.6	53.5	202.2	86.6	101.7
December, 1920	62.7	166.6	71.4	53.5	202.2	100.6	96.7
June, 1928	34.9	71.4	54.1	56.5	110.7	107.2	67.4
December, 1928	44.7	70.5	49.8	51.5	108.4	110.9	71.0
June, 1929	41.2	69.3	45.2	50.6	106.5	111.1	68.9
December, 1929	40.9	69.3	43.7	51.4	105.9	111.7	68.7
June, 1930	30.9	68.1	39.8	45.6	103.6	110.2	63.7
December, 1930	21.0	60.2	36.9	47.6	93.0	110.2	58.1
June, 1931	3.1	50.7	31.3	47.0	77.8	107.7	48.2
December, 1931	5.7	40.0	25.7	46.6	71.2	103.5	45.1
June, 1932	[1] 12.0	32.0	15.8	45.3	54.9	102.7	35.2
December, 1932	[1] 8.1	26.3	4.8	45.6	49.5	96.2	32.1
Mobile, Ala.:							
December, 1915	[1] 1.0	2.0	[1] 1.9	[2]	4.1	[1] .4	[1] .4
June, 1920	110.5	137.4	34.6	86.3	177.9	100.3	107.0
December, 1920	73.5	122.2	53.6	122.3	175.4	100.7	93.3
June, 1928	45.4	47.5	41.0	90.0	93.3	107.3	63.5
December, 1928	49.6	48.1	41.6	92.1	92.3	108.3	65.7
June, 1929	47.5	47.2	41.0	84.0	87.9	108.1	64.0
December, 1929	49.0	47.2	40.6	85.8	87.3	108.3	64.8
June, 1930	39.6	46.8	38.9	81.2	85.6	108.1	60.3
December, 1930	33.0	40.0	36.3	[3] 58.6	73.5	107.5	54.4
June, 1931	12.1	34.1	32.5	49.6	57.5	105.4	43.0
December, 1931	7.4	26.2	24.6	49.7	50.6	102.3	38.0
June, 1932	[1] 10.0	18.9	16.3	42.1	43.5	98.1	27.4
December, 1932	[1] 9.0	17.6	3.6	34.7	43.8	97.7	25.9
New York, N. Y.:							
December, 1915	1.3	4.8	[1] .1	[1] .1	8.4	2.0	2.0
June, 1920	105.3	241.4	32.4	60.1	205.1	111.9	119.2
December, 1920	73.5	201.8	38.1	87.5	185.9	116.3	101.4
June, 1928	47.5	90.3	69.3	94.4	97.8	118.6	74.4
December, 1928	53.0	88.4	68.6	96.3	96.4	118.8	76.3
June, 1929	50.6	87.8	67.6	92.0	96.2	121.4	75.5
December, 1929	54.9	85.9	66.1	95.1	95.4	122.9	77.1
June, 1930	43.7	85.5	65.1	85.7	90.5	123.3	71.7
December, 1930	35.9	82.2	63.1	90.9	85.5	123.7	67.5
June, 1931	19.6	67.6	61.5	86.3	62.5	123.5	57.1
December, 1931	14.4	56.5	58.4	90.4	52.3	120.6	52.0
June, 1932	4.1	51.0	53.0	76.5	44.7	118.6	44.8
December, 1932	1.9	37.6	44.1	80.4	37.9	116.0	40.2

[1] Decrease.
[2] No change.
[3] The decrease is due primarily to the change in consumption and price accompanying the change from manufactured to natural gas.

TABLE 4.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1932—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Norfolk, Va.:							
December, 1915	0.8	0.8	0.1	(3)	0.6	0.6	0.6
June, 1920	107.6	176.5	70.8	110.6	165.0	108.4	122.2
December, 1920	76.3	153.6	90.8	128.9	160.5	106.3	109.0
June, 1928	50.2	71.6	41.7	95.6	85.7	114.6	71.5
December, 1928	55.0	71.8	39.6	100.3	86.1	118.2	74.1
June, 1929	51.9	71.3	38.8	94.3	85.2	118.0	72.3
December, 1929	55.8	70.4	37.1	92.7	83.0	119.3	73.5
June, 1930	43.3	68.7	36.0	87.3	80.4	118.6	67.9
December, 1930	36.7	66.2	33.3	97.0	73.5	119.0	64.8
June, 1931	15.0	57.7	32.6	83.6	63.8	119.0	54.0
December, 1931	9.8	46.2	29.3	83.0	56.1	118.3	48.8
June, 1932	[1].3	38.9	27.0	67.4	47.4	107.8	39.9
December, 1932	[1] 4.7	34.2	18.2	68.4	42.4	110.3	36.5
Philadelphia, Pa.:							
December, 1915	.3	3.6	[1].3	[1].8	6.9	1.2	1.2
June, 1920	101.7	219.6	28.6	66.8	187.4	102.8	113.5
December, 1920	68.1	183.5	38.0	96.0	183.4	122.3	100.7
June, 1928	51.3	76.5	67.1	81.5	85.4	121.4	75.3
December, 1928	51.7	74.0	63.8	87.3	83.9	120.3	74.5
June, 1929	50.0	72.6	59.9	85.4	84.1	121.2	73.1
December, 1929	56.1	71.2	56.5	86.3	84.7	121.2	75.0
June, 1930	42.6	69.7	54.0	86.5	83.2	121.4	69.0
December, 1930	34.4	64.9	51.2	95.8	75.3	120.7	64.5
June, 1931	20.8	57.6	45.8	80.5	63.2	118.5	55.3
December, 1931	17.0	42.0	40.3	91.7	54.1	117.6	50.5
June, 1932	.1	33.4	33.7	67.4	43.9	113.2	38.6
December, 1932	[1] 3.8	26.3	25.7	71.9	31.8	108.7	33.9
Portland, Me.:							
December, 1915	[1] 2.0	2.1	.2	.4	6.2	[1].4	[1].4
June, 1920	114.5	165.9	14.5	83.9	190.3	89.4	107.6
December, 1920	78.7	147.8	20.0	113.5	191.2	94.3	93.1
June, 1928	54.2	66.5	21.5	98.4	112.5	88.8	63.8
December, 1928	57.0	64.8	20.9	102.4	112.3	97.3	66.6
June, 1929	54.3	65.8	19.8	94.1	112.3	97.3	64.8
December, 1929	55.7	65.6	19.8	101.9	112.1	97.1	65.8
June, 1930	45.9	65.4	19.9	96.9	111.9	97.1	61.5
December, 1930	38.5	60.4	19.3	99.9	105.8	95.9	57.2
June, 1931	20.5	55.7	17.9	95.3	99.2	95.9	48.2
December, 1931	17.2	47.9	17.0	97.3	91.0	95.7	45.1
June, 1932	5.2	38.6	15.0	84.1	81.1	94.9	36.9
December, 1932	2.1	24.7	11.6	85.9	69.9	93.5	32.3
Portland, Oreg.:							
December, 1915	[1] 3.8	3.0	[1] 10.9	[1] 1.0	2.9	[1] 3.1	[1] 3.1
June, 1920	107.1	158.6	33.2	46.9	183.9	79.7	100.4
December, 1920	60.9	122.1	36.9	65.9	179.9	81.1	80.3
June, 1928	36.6	50.8	20.9	51.6	80.5	76.4	50.5
December, 1928	41.8	49.4	16.4	63.0	80.1	78.0	52.4
June, 1929	41.4	48.4	11.0	51.4	79.7	77.3	50.7
December, 1929	43.7	47.8	8.2	61.8	81.0	77.7	51.6
June, 1930	34.2	44.8	5.4	49.7	78.6	86.6	49.1
December, 1930	17.8	38.4	2.4	55.5	69.7	85.1	41.5
June, 1931	8.2	32.9	[1] 1.3	36.4	65.8	83.6	35.2
December, 1931	6.0	23.3	[1] 6.2	40.1	56.8	82.9	31.9
June, 1932	[1] 6.9	15.9	[1] 13.2	22.9	42.7	79.6	22.7
December, 1932	[1] 6.8	10.0	[1] 19.0	24.9	36.4	76.9	20.1
San Francisco and Oakland, Calif.:							
December, 1915	[1] 4.3	2.5	[1].7	[1].1	6.0	[1] 1.7	[1] 1.7
June, 1920	93.9	191.0	9.4	47.2	180.1	79.6	96.0
December, 1920	64.9	175.9	15.0	66.3	175.6	84.8	85.1
June, 1928	41.5	82.9	35.7	45.9	102.0	79.6	58.8
December, 1928	48.0	83.4	33.5	47.5	99.0	83.2	61.7
June, 1929	45.1	82.8	31.9	43.7	97.8	83.4	60.1
December, 1929	48.7	81.5	30.4	40.3	97.4	82.5	60.8
June, 1930	40.4	77.9	28.1	[2] 28.7	100.6	80.9	55.9
December, 1930	32.0	72.0	26.1	32.0	91.6	82.0	51.5
June, 1931	15.8	66.3	24.2	28.8	79.3	79.1	42.8
December, 1931	10.3	57.5	20.2	30.6	66.6	78.7	38.1
June, 1932	.5	48.7	14.8	25.1	52.9	76.2	30.8
December, 1932	2.7	39.6	9.3	24.6	49.1	74.8	28.9

[1] Decrease.
[2] No change.
[3] The decrease is due primarily to the change in consumption and price accompanying the change from manufactured to natural gas.

TABLE 4.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1932—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Savannah, Ga.:							
December, 1915	[1] 0.3	0.8	[1] 1.4	[1] 1.3	1.8	[1] 0.2	[1] 0.2
June, 1920	91.7	212.1	33.5	65.3	207.2	83.8	109.4
December, 1920	63.5	171.5	58.6	94.4	206.6	91.5	98.7
June, 1928	31.1	68.8	35.9	56.9	120.8	81.9	56.6
December, 1928	35.0	69.0	33.9	59.6	118.8	87.0	59.1
June, 1929	33.9	68.2	32.7	55.8	117.9	83.8	57.2
December, 1929	35.1	67.7	28.3	56.1	117.2	84.5	57.2
June, 1930	25.2	66.0	27.0	54.2	113.7	84.7	53.1
December, 1930	17.7	61.4	19.6	56.2	110.1	83.8	48.3
June, 1931	1.5	58.0	15.8	50.7	98.5	83.8	40.7
December, 1931	[1] 4.7	44.6	9.5	40.9	89.0	82.3	33.9
June, 1932	[1] 18.1	35.2	4.0	39.6	79.0	76.8	25.0
December, 1932	[1] 16.8	29.0	[1] 4.3	37.6	67.4	75.2	22.0
Seattle, Wash.:							
December, 1915	[1] 2.8	1.2	[1] 2.4	[1] .2	8.5	[1] 1.0	[1] 1.0
June, 1920	102.3	173.9	74.8	65.8	221.2	90.4	110.5
December, 1920	54.1	160.5	76.7	78.7	216.4	95.5	94.1
June, 1928	36.9	68.8	55.5	57.1	133.5	97.4	65.8
December, 1928	40.8	68.3	54.1	62.9	132.6	97.4	67.1
June, 1929	43.7	66.6	52.4	62.1	131.7	98.8	67.7
December, 1929	45.9	66.6	52.1	65.8	132.6	98.8	68.7
June, 1930	38.1	64.6	50.1	65.5	132.4	98.6	65.4
December, 1930	22.5	59.7	47.8	64.0	128.0	97.6	58.4
June, 1931	12.2	55.7	44.4	54.0	114.5	96.6	52.3
December, 1931	8.8	45.9	37.5	61.5	103.1	94.6	48.0
June, 1932	[1] 3.1	35.2	25.3	56.3	83.4	90.5	38.2
December, 1932	[1] 5.1	28.7	15.4	48.5	77.7	88.8	33.7
Washington, D. C.:							
December, 1915	.6	3.7	[1] 1.5	[2]	6.3	.4	1.0
June, 1920	108.4	184.0	15.6	53.7	196.4	68.2	101.3
December, 1920	79.0	151.1	24.7	68.0	194.0	73.9	87.8
June, 1928	55.5	67.0	32.7	38.8	102.2	73.6	59.7
December, 1928	58.2	65.2	31.0	41.0	99.4	73.8	60.2
June, 1929	58.4	64.4	30.5	38.0	100.0	74.0	60.0
December, 1929	57.4	62.3	30.0	39.7	100.2	74.3	59.2
June, 1930	49.1	60.5	29.7	36.2	100.4	73.8	55.5
December, 1930	41.3	55.4	28.7	36.6	93.0	76.8	51.8
June, 1931	22.8	49.7	28.2	32.5	86.6	75.7	43.0
December, 1931	17.8	39.7	27.9	34.9	79.9	75.3	39.0
June, 1932	2.4	28.0	27.1	26.7	61.2	74.6	29.5
December, 1932	[1] 1.4	20.7	22.5	29.2	57.3	72.7	25.8

[1] Decrease. [2] No change.

The changes in the cost of living from December, 1917, to December, 1932, is reported in Table 5. This table is constructed in the same manner as Table 4, and differs only in the base period and the time covered.

TABLE 5.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1932

City and date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Atlanta, Ga.:							
December, 1918	19.0	29.1	14.0	17.0	24.9	14.8	19.7
June, 1920	34.0	80.5	40.4	61.0	65.0	34.6	46.7
December, 1920	12.8	56.5	73.1	66.8	58.4	39.7	38.5
June, 1928	[1] 1.0	.2	38.9	31.8	15.2	35.6	13.9
December, 1928	2.9	.4	38.2	36.3	14.9	35.3	15.6
June, 1929	.3	.3	37.5	28.4	14.6	33.0	13.6
December, 1929	.1	[1] .6	35.9	31.6	14.1	34.2	13.5
June, 1930	[1] 7.9	[1] 2.8	32.8	[2] 11.6	11.2	31.8	7.9
December, 1930	[1] 13.1	[1] 6.4	30.8	11.6	8.0	30.5	4.5
June, 1931	[1] 24.2	[1] 8.5	28.3	3.6	1.7	28.2	[1] 1.7
December, 1931	[1] 29.2	[1] 16.7	19.6	4.8	[1] 5.7	28.7	[1] 6.2
June, 1932	[1] 36.6	[1] 21.4	14.6	[1] 2.7	[1] 12.3	28.2	[1] 11.5
December, 1932	[1] 39.8	[1] 24.9	.2	.4	[1] 16.4	25.4	[1] 15.4
Birmingham, Ala.:							
December, 1918	17.7	23.9	8.1	22.8	19.4	13.8	17.0
June, 1920	36.4	66.4	40.3	55.3	55.6	28.7	41.9
December, 1920	11.9	45.1	68.5	74.2	48.1	30.4	33.3
June, 1928	[1] 4.7	[1] 4.3	59.4	37.1	13.9	28.2	13.7
December, 1928	[1] 2.2	[1] 4.2	54.8	43.4	12.3	27.2	14.2
June, 1929	[1] 3.9	[1] 4.3	50.8	35.5	10.6	26.1	12.3
December, 1929	[1] 2.8	[1] 5.0	40.8	38.8	10.5	27.2	11.8
June, 1930	[1] 8.9	[1] 5.9	35.9	33.2	9.3	26.4	8.2
December, 1930	[1] 14.0	[1] 9.1	23.5	38.5	2.7	25.1	3.8
June, 1931	[1] 30.6	[1] 13.1	15.1	25.3	[1] 5.4	24.2	[1] 5.6
December, 1931	[1] 33.2	[1] 20.1	1.5	24.9	[1] 11.0	24.1	[1] 9.6
June, 1932	[1] 40.8	[1] 25.5	[1] 7.6	9.0	[1] 23.4	21.6	[1] 16.4
December, 1932	[1] 39.9	[1] 28.2	[1] 22.7	9.2	[1] 24.4	21.0	[1] 18.7
Cincinnati, Ohio:							
December, 1918	15.3	33.8	.2	10.0	25.7	20.4	17.3
June, 1920	38.7	96.7	13.6	26.9	75.5	47.6	47.1
December, 1920	10.3	73.5	25.0	34.1	66.7	53.4	34.7
June, 1928	[1] .5	[1] 3.9	57.1	61.1	15.4	49.7	21.0
December, 1928	.4	[1] 5.5	57.1	61.6	14.7	49.6	21.2
June, 1929	2.5	[1] 5.8	56.9	60.8	13.6	49.7	21.8
December, 1929	4.5	[1] 6.4	56.7	70.9	13.1	51.2	23.1
June, 1930	[1] 1.2	[1] 7.1	54.5	63.6	11.6	51.5	20.1
December, 1930	[1] 8.0	[1] 8.7	52.8	69.7	8.7	49.4	16.6
June, 1931	[1] 20.4	[1] 17.5	49.3	59.2	[1] .4	51.5	9.1
December, 1931	[1] 24.2	[1] 22.4	43.9	64.6	[1] 5.1	50.3	5.8
June, 1932	[1] 37.3	[1] 24.3	34.1	54.7	[1] 11.3	48.6	[1] 2.3
December, 1932	[1] 38.3	[1] 26.9	25.2	60.0	[1] 15.8	47.6	[1] 4.5
Denver, Colo.:							
December, 1918	20.0	40.1	12.8	8.1	22.6	14.8	20.7
June, 1920	41.5	96.8	51.9	22.3	60.2	35.4	50.3
December, 1920	7.9	78.3	69.8	47.1	58.9	38.8	38.7
June, 1928	[1] 8.6	8.4	55.8	26.9	20.5	33.4	14.9
December, 1928	[1] 6.3	8.2	54.1	39.3	19.8	33.8	16.3
June, 1929	[1] 7.4	8.0	52.3	[2] 19.0	17.4	38.8	15.6
December, 1929	[1] 6.8	7.9	51.1	29.2	16.0	38.7	16.1
June, 1930	[1] 11.9	7.0	49.4	22.6	15.3	38.0	13.0
December, 1930	[1] 19.9	5.5	47.8	27.4	12.4	37.6	9.7
June, 1931	[1] 28.7	2.3	43.1	7.9	8.1	36.9	3.8
December, 1931	[1] 30.6	[1] 6.5	37.1	7.1	[1] .2	36.5	.3
June, 1932	[1] 38.6	[1] 15.3	28.2	1.2	[1] 9.1	35.8	[1] 6.3
December, 1932	[1] 37.7	[1] 19.7	20.5	[1] 4.8	[1] 10.7	34.2	[1] 8.3
Indianapolis, Ind.:							
December, 1918	17.8	32.4	1.6	19.8	18.9	21.9	19.1
June, 1920	49.0	87.9	18.9	45.6	67.5	40.5	50.2
December, 1920	11.0	72.3	32.9	60.3	63.0	47.5	37.6
June, 1928	[1] 1.8	4.3	31.3	29.2	13.7	52.3	18.2
December, 1928	[1] .3	3.2	30.4	32.3	12.6	52.0	18.5
June, 1929	[1] .8	3.0	28.4	26.1	12.7	52.3	17.7
December, 1929	2.0	2.4	27.9	31.0	11.7	52.0	18.8
June, 1930	[1] 2.7	1.2	25.9	24.8	9.0	51.8	16.1
December, 1930	[1] 14.2	[1] 1.6	23.9	30.2	5.6	50.4	10.8
June, 1931	[1] 26.5	[1] 10.4	16.8	23.8	[1] 3.6	49.5	3.0
December, 1931	[1] 29.1	[1] 19.4	11.3	23.7	[1] 12.4	49.2	[1] .8
June, 1932	[1] 37.6	[1] 22.9	3.4	12.1	[1] 17.0	48.5	[1] 6.6
December, 1932	[1] 39.0	[1] 25.5	[1] 6.6	17.3	[1] 19.1	44.8	[1] 9.5

[1] Decrease.

[2] The decrease is due primarily to the change in consumption and price accompanying the change from manufactured to natural gas.

TABLE 5.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1932—Continued

City and date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Kansas City, Mo.:							
December, 1918	17.3	40.7	5.4	18.0	31.1	15.6	19.6
June, 1920	44.9	104.5	29.4	35.2	73.0	37.1	51.0
December, 1920	10.2	76.3	63.9	55.1	68.7	40.3	39.5
June, 1928	[1] 5.4	2.7	24.8	28.7	6.8	35.0	11.2
December, 1928	[1] 6.0	2.9	23.8	26.8	5.6	37.8	11.3
June, 1929	[1] 5.3	2.4	21.1	26.3	5.1	37.0	11.0
December, 1929	[1] 2.2	1.8	20.1	23.9	3.4	36.9	11.7
June, 1930	[1] 8.6	1.5	19.4	24.0	2.1	36.9	9.0
December, 1930	[1] 15.8	1.0	19.8	22.0	[1] 1.1	44.3	7.7
June, 1931	[1] 24.9	[1] 1.7	17.4	19.7	[1] 6.2	44.0	2.9
December, 1931	[1] 28.9	[1] 9.9	16.3	14.3	[1] 11.5	42.3	[1] 1.1
June, 1932	[1] 38.7	[1] 17.1	8.2	12.0	[1] 18.0	37.6	[1] 8.5
December, 1932	[1] 38.4	[1] 21.6	2.8	9.4	[1] 21.1	35.9	[1] 10.5
Memphis, Tenn.:							
December, 1918	20.3	27.7	([3])	26.8	25.4	16.1	18.3
June, 1920	38.8	77.5	35.9	49.7	67.1	38.8	46.4
December, 1920	7.0	59.0	66.2	105.4	53.9	43.2	39.3
June, 1928	[1] 8.1	1.5	46.3	60.0	16.0	36.9	16.4
December, 1928	[1] 4.9	.2	43.7	68.8	14.8	37.7	17.5
June, 1929	[1] 6.0	[1] .1	42.6	[2] 63.6	13.8	38.5	16.8
December, 1929	[1] 5.1	[1] .1	40.6	55.3	13.9	38.6	16.5
June, 1930	[1] 10.6	[1] .6	39.6	58.9	13.3	39.6	14.7
December, 1930	[1] 19.2	[1] 2.4	35.8	57.9	10.7	38.8	10.4
June, 1931	[1] 31.3	[1] 4.8	29.8	48.3	6.2	35.5	3.4
December, 1931	[1] 34.2	[1] 10.4	18.4	48.3	[1] .9	35.2	[1] .5
June, 1932	[1] 42.3	[1] 14.5	11.3	45.9	[1] 6.5	29.0	[1] 7.1
December, 1932	[1] 43.3	[1] 19.0	[1] .7	31.7	[1] 14.7	31.3	[1] 10.4
Minneapolis, Minn.:							
December, 1918	17.7	33.5	[1] .1	14.7	18.1	12.3	15.8
June, 1920	50.0	76.7	10.7	36.9	65.5	31.3	43.4
December, 1920	13.0	63.6	36.8	60.3	65.8	37.6	35.7
June, 1928	1.6	[1] 1.1	27.2	45.2	12.3	34.6	15.8
December, 1928	.7	[1] 1.5	27.5	44.6	10.5	34.5	15.2
June, 1929	1.8	[1] 1.8	25.6	41.9	10.5	36.7	15.4
December, 1929	3.9	[1] 2.8	25.2	44.3	10.9	36.6	16.2
June, 1930	[1] 1.0	[1] 3.5	23.6	46.2	10.6	36.3	14.1
December, 1930	[1] 9.4	[1] 4.4	23.5	39.9	7.8	37.0	10.6
June, 1931	[1] 21.2	[1] 8.8	21.4	41.6	3.7	35.4	5.0
December, 1931	[1] 25.5	[1] 16.2	19.8	44.3	[1] 2.7	36.1	2.1
June, 1932	[1] 35.2	[1] 23.3	12.1	37.1	[1] 12.4	35.6	[1] 4.9
December, 1932	[1] 36.0	[1] 26.4	6.7	39.2	[1] 14.1	30.3	[1] 7.5
New Orleans, La.:							
December, 1918	16.6	36.8	([3])	19.7	23.8	15.9	17.9
June, 1920	28.6	94.9	12.9	36.3	75.9	42.8	41.9
December, 1920	10.7	69.4	39.7	41.5	63.9	57.1	36.7
June, 1928	[1] 6.8	13.1	55.9	34.5	17.9	46.1	18.2
December, 1928	[1] 3.2	13.1	54.8	28.4	17.9	46.8	19.5
June, 1929	[1] 4.3	12.6	53.6	[2] 14.9	15.9	45.9	17.8
December, 1929	[1] 1.8	12.6	51.3	18.1	15.7	45.8	18.8
June, 1930	[1] 9.8	12.0	49.2	12.4	14.8	46.5	14.8
December, 1930	[1] 15.0	.1	45.3	14.4	10.2	46.5	10.2
June, 1931	[1] 30.3	[1] 2.7	43.0	[1] 6.5	5.9	43.1	1.2
December, 1931	[1] 30.3	[1] 9.7	38.7	4.1	[1] .5	45.2	.3
June, 1932	[1] 40.5	[1] 13.9	35.4	[1] 4.4	[1] 8.7	42.6	[1] 6.4
December, 1932	[1] 38.5	[1] 16.2	26.9	[1] 6.4	[1] 10.8	41.6	[1] 7.2
Pittsburgh, Pa.:							
December, 1918	18.8	35.9	7.6	9.2	26.3	16.3	19.8
June, 1920	36.5	91.3	34.9	31.7	77.4	41.2	49.1
December, 1920	14.3	75.4	35.0	64.4	78.1	46.3	39.3
June, 1928	[1] 3.8	4.2	72.8	85.6	15.9	46.9	22.3
December, 1928	2.1	3.5	71.6	86.0	16.4	46.9	24.4
June, 1929	.6	2.9	68.3	85.6	15.1	48.1	23.2
December, 1929	1.2	2.1	67.1	86.0	14.6	47.5	23.2
June, 1930	[1] 5.6	1.5	64.9	85.1	13.5	47.9	19.9
December, 1930	[1] 13.4	[1] 3.9	63.7	84.4	6.6	47.5	15.2
June, 1931	[1] 24.2	[1] 9.4	56.8	83.1	.4	46.9	8.4
December, 1931	[1] 29.2	[1] 13.3	52.3	83.8	[1] 6.4	45.6	4.5
June, 1932	[1] 38.4	[1] 17.0	35.9	81.6	[1] 14.5	42.5	[1] 3.4
December, 1932	[1] 38.8	[1] 21.2	29.4	77.4	[1] 17.0	40.8	[1] 5.8

[1] Decrease.
[2] The decrease is due primarily to the change in consumption and price accompanying the change from manufactured to natural gas.
[3] No change.

TABLE 5.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1932—Continued

City and date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Richmond, Va.:							
December, 1918	20.5	33.8	1.0	11.8	26.3	9.0	17.9
June, 1920	36.1	93.6	12.5	36.1	75.4	32.4	43.8
December, 1920	11.9	69.0	25.9	62.2	70.0	36.0	33.3
June, 1928	[1] 3.8	5.0	30.6	43.9	33.8	41.0	15.3
December, 1928	[1] 3.1	5.4	28.9	47.5	32.7	40.9	15.7
June, 1929	[1] 5.0	4.2	28.3	42.0	32.4	40.2	14.2
December, 1929	[1] 3.4	4.2	27.0	44.7	31.3	41.0	14.9
June, 1930	[1] 8.0	3.3	26.5	38.5	30.0	41.3	12.5
December, 1930	[1] 14.9	2.0	25.5	42.0	26.6	41.0	9.3
June, 1931	[1] 27.2	[1] 2.4	24.4	33.1	18.6	40.6	2.4
December, 1931	[1] 29.2	[1] 8.6	21.8	37.6	15.5	40.3	.3
June, 1932	[1] 39.2	[1] 13.9	20.0	25.6	2.8	38.3	[1] 6.7
December, 1932	[1] 39.7	[1] 18.1	10.4	24.5	[1] 1.6	34.4	[1] 9.6
St. Louis, Mo.:							
December, 1918	18.0	32.4	2.7	4.8	21.8	14.5	16.7
June, 1920	46.2	89.7	29.8	19.6	73.1	37.6	48.9
December, 1920	8.8	70.0	42.4	42.6	70.2	43.2	35.4
June, 1928	[1] 3.5	3.1	76.3	18.9	21.6	37.2	19.9
December, 1928	[1] 2.2	2.5	74.2	23.1	19.5	38.7	20.4
June, 1929	[1].4	1.7	71.8	22.5	17.8	38.4	20.5
December, 1929	[1].5	.8	69.2	33.4	16.2	44.2	21.7
June, 1930	[1] 6.7	[2]	66.0	21.8	16.9	44.6	18.3
December, 1930	[1] 14.9	[1] 1.4	59.5	29.1	15.4	42.1	13.9
June, 1931	[1] 24.9	[1] 10.7	53.0	12.4	5.9	41.5	6.2
December, 1931	[1] 29.8	[1] 19.2	44.0	20.7	[1].6	39.2	1.4
June, 1932	[1] 38.3	[1] 22.4	34.4	17.4	[1] 8.6	39.1	[1] 4.3
December, 1932	[1] 39.4	[1] 25.7	22.3	14.1	[1] 12.7	38.7	[1] 7.4
Scranton, Pa.:							
December, 1918	21.3	34.4	.5	24.7	27.0	21.4	21.9
June, 1920	41.4	97.7	17.2	43.5	62.8	47.9	51.5
December, 1920	17.8	76.5	18.5	67.3	62.0	50.4	39.1
June, 1928	2.4	16.2	71.7	69.0	30.1	56.2	26.9
December, 1928	4.3	15.3	71.7	72.2	29.3	57.8	27.8
June, 1929	2.9	15.2	68.1	65.0	26.5	57.5	26.3
December, 1929	6.5	13.7	63.9	67.6	26.0	57.3	27.3
June, 1930	[1].8	13.5	60.5	60.2	26.0	57.3	23.5
December, 1930	[1] 8.1	10.7	59.1	66.1	22.9	56.8	19.5
June, 1931	[1] 20.3	3.9	53.2	61.3	18.2	55.2	11.8
December, 1931	[1] 22.8	[1] 7.1	51.8	69.5	7.3	55.2	8.4
June, 1932	[1] 32.1	[1] 9.5	43.8	45.3	3.7	52.1	1.3
December, 1932	[1] 33.4	[1] 14.1	40.6	53.3	1.0	51.0	[1].5

[1] Decrease. [2] No change.

Cost of Living in the United States and in Foreign Countries

THE trend of cost of living in the United States and foreign countries for June and December, 1929, 1930, 1931, and 1932 is shown in the following table. The number of countries included varies according to the information available. Index numbers for the groups of items and a general index are presented for all countries with the exception of Australia, Bulgaria, Ireland, The Netherlands, and South Africa. The item of rent is not shown for Bulgaria. Australia, Ireland, The Netherlands, and South Africa publish a general index and an index number for food only. The table shows the trend in the cost of food, clothing, fuel and light, and rent together with the general index for all items for the countries for which such information is published in the original sources.

Caution should be observed in the use of these figures, since not only are there differences in the base periods and in the number and kind of articles included, and the number of markets represented, but there are also radical differences in the method of construction of the indexes.

INDEX NUMBERS OF COST OF LIVING FOR SPECIFIED PERIODS IN THE UNITED STATES AND IN FOREIGN COUNTRIES

Country	United States	Australia (30 towns)	Austria, Vienna	Belgium	Bulgaria	Canada	Chile, Santiago	China, Shanghai
Commodities included	Food, clothing, fuel and light, rent, house-furnishing goods miscellaneous	Food, groceries, rent, 4 and 5 rooms	Food, clothing, fuel and light, rent, sundries [1]	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, miscellaneous	Food, clothing fuel and light, rent, miscellaneous
Computing agency	Bureau of Labor, Statistics	Bureau of Census and Statistics	Federal Statistical Bureau	Ministry of Labor and Industry	Federal Statistical Bureau	Department of Labor	Office of Statistics	National Tariff Commission
Base period	1913=100	1923–1927 =1,000	July, 1914 =100	1921=100	1926=100	1913=100	March, 1928=100	1926=100
General:								
1929—June	170.2	[2] 1,042	111	212.6	----------	156	110.5	105.4
December	171.4	[2] 1,046	113	227.7	----------	160	115.1	111.5
1930—June	166.6	[2] 996	113	224.0	88.0	157	108.0	120.2
December	160.7	[2] 912	108	222.5	76.6	151	109.6	113.8
1931—June	150.3	[2] 860	106	204.5	72.1	138	104.0	121.0
December	145.8	[2] 814	108	193.1	71.2	135	105.0	121.2
1932—June	135.7	[2] 810	109	179.7	66.8	126	107.6	121.3
December	132.1	----------	107	----------	----------	125	----------	----------
Food:								
1929—June	154.8	1,045	124	207.8	----------	149	122.6	93.5
December	158.0	1,011	122	227.1	----------	161	125.4	104.5
1930—June	147.9	968	121	201.1	87.7	151	121.4	119.2
December	137.2	871	111	200.1	75.5	138	110.3	100.8
1931—June	118.3	833	108	176.5	71.4	111	103.6	99.6
December	114.3	809	110	160.7	70.5	107	95.5	97.0
1932—June	100.1	803	113	143.8	66.2	93	107.1	107.3
December	98.7	----------	109	----------	----------	96	----------	----------
Clothing:								
1929—June	161.3	----------	183	255.8	----------	157	101.2	97.0
December	160.5	----------	183	262.0	----------	156	99.3	98.8
1930—June	158.9	----------	183	262.0	[3] 95.6	155	99.3	99.1
December	153.0	----------	177	259.8	[3] 95.6	148	96.9	99.0
1931—June	146.0	----------	162	250.8	[3] 80.9	137	96.9	110.2
December	135.5	----------	166	246.4	[3] 80.9	127	96.9	108.8
1932—June	127.8	----------	162	236.1	----------	120	126.5	98.3
December	121.5	----------	162	----------	----------	114	----------	----------
Fuel and light:								
1929—June	175.2	----------	103	194.3	----------	157	96.0	123.8
December	178.7	----------	106	212.8	----------	157	93.3	120.2
1930—June	172.8	----------	104	204.6	92.4	156	105.1	120.5
December	175.0	----------	104	198.3	93.3	156	101.2	119.6
1931—June	165.4	----------	104	184.0	82.7	153	94.2	128.3
December	168.0	----------	104	182.4	82.9	152	89.2	140.8
1932—June	157.1	----------	104	173.8	75.9	148	99.9	131.7
December	156.9	----------	105	----------	----------	145	----------	----------
Rent:								
1929—June	153.7	----------	15	223.7	----------	158	100.0	102.2
December	151.9	----------	22	226.8	----------	158	100.0	102.4
1930—June	149.6	----------	22	406.0	----------	160	100.0	104.5
December	146.5	----------	25	405.0	----------	160	100.0	104.5
1931—June	142.0	----------	25	402.5	----------	158	100.0	105.6
December	136.2	----------	27	401.0	----------	158	100.0	107.3
1932—June	127.8	----------	28	398.5	----------	147	100.0	107.3
December	118.0	----------	28	----------	----------	141	----------	----------

[1] Gold. [2] Quarter ending with month. [3] Year only.

INDEX NUMBERS OF COST OF LIVING FOR SPECIFIED PERIODS IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Czechoslovakia, Prague	Estonia, Tallin	Finland	France, Paris	Germany	India, Bombay	Ireland	Italy, Milan
Commodities included	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, etc.	Food, clothing, fuel, rent, light, taxes, etc.	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel, light, rent	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries
Computing agency	Office of Statistics	Bureau of Statistics	Ministry of Social Affairs	Commission for study of cost of living	Federal Statistical Bureau	Labor office	Department of Industry and Commerce	Municipal administration
Base period	July, 1914 =100	1913=100	January–June, 1914 =100	January–June, 1914 =100	1913–1914 =100	July, 1914 =100	July, 1914 =100	January–June, 1914 =100
General:								
1929—June		119	1215.3	556	153.4	147	[4] 173	544.3
December		109	1207.2	565	152.6	150	[5] 179	549.2
1930—June	111.1	102	1108.3	572	147.6	140	[4] 168	530.9
December	105.8	99	1083.2	597	141.6	121	[5] 168	508.3
1931—June	106.8	104	1019.9	589	137.8	109	[6] 156	488.0
December	101.6	95	1048.0	531	130.4	109	[7] 165	472.7
1932—June	103.6	95	1003.4	535	121.4	107	[6] 159	471.7
December		103.8					[7] 155	
Food:								
1929—June		130	1103.1	590	154.0	144	[4] 164	541.7
December		112	1090.1	589	152.2	148	[5] 173	548.0
1930—June	118.1	101	937.2	593	142.7	137	[4] 156	522.5
December	109.4	96	903.3	636	134.8	116	[5] 156	499.0
1931—June	109.3	93	842.4	642	130.9	101	[6] 139	456.6
December	99.1	80	918.8	555	119.9	101	[7] 155	437.8
1932—June	101.4	80	871.0	567	113.4	99	[6] 144	438.0
December							[7] 135	
Clothing:								
1929—June		150	1055.4	604	172.4	159		555.2
December		150	1051.3	604	170.3	151		548.8
1930—June	133.2	150	1045.6	626	166.8	138		508.8
December	119.9	147	1033.6	610	149.8	125		447.7
1931—June	111.9	147	1004.1	552	139.9	123		421.2
December	105.8	145	975.7	508	129.1	117		390.3
1932—June	100.5	141	979.1	499	117.2	115		371.8
December								
Fuel and light:								
1929—June		97	1455.5	539	148.9	143		425.0
December		101	1455.4	602	152.9	143		453.1
1930—June	121.6	96	1407.1	607	149.4	143		473.0
December	121.6	94	1290.1	633	151.1	141		457.3
1931—June	119.7	80	1066.8	596	145.4	143		424.3
December	119.7	76	913.5	619	148.8	145		404.3
1932—June	117.5	65	865.9	592	133.8	137		403.6
December								
Rent:								
1929—June		52	1476.3	300	126.0	172		407.6
December		52	1476.3	350	126.7	172		410.2
1930—June	49.6	52	1467.0	350	129.8	172		410.2
December	52.8	52	1467.0	350	131.3	172		422.2
1931—June	54.4	145	1373.1	350	131.6	158		473.1
December	54.4	145	1373.1	360	131.6	158		482.7
1932—June	54.4	144	1263.9	360	121.4	158		445.1
December								

[4] April. [5] October. [6] May. [7] November.

INDEX NUMBERS OF COST OF LIVING FOR SPECIFIED PERIODS IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Netherlands, Amsterdam	New Zealand	Norway	Poland, Warsaw	South Africa	Sweden	Switzerland	United Kingdom
Commodities included	Food, all commodities	Food, clothing, fuel, light, rent, sundries	Food, clothing, fuel, light, rent, sundries	Food, clothing, fuel, light, rent, sundries	Food, fuel, light, rent, sundries	Food, clothing, fuel and light, rent, taxation, sundries	Food, clothing, fuel, light, rent, sundries	Food, clothing, fuel, light, rent, sundries
Computing agency	Bureau of Statistics	Census and Statistics Office	Central Statistical Office	Central Statistical Office	Office of Census and Statistics	Board of Social Welfare	Federal Labor Office	Ministry of Labor
Base period	1911–1913 =100	1926–1930 =1,000	July, 1914 =100	1927= 100	1914= 1,000	July, 1914 =100	June, 1914 =100	July, 1914 =100
General:								
1929—June	169.0	----------	164	101.7	1320	[4] 171	161	160
December	167.4	[7] 1003	165	100.4	1294	[5] 170	162	167
1930—June	162.1	[6] 990	161	94.0	1293	[4] 165	158	154
December	156.6	[7] 963	159	93.8	1258	[5] 163	156	155
1931—June	153.5	[6] 913	151	88.4	1233	[4] 160	150	145
December	145.2	[7] 888	150	83.3	1206	[5] 158	145	148
1932—June	140.9	[6] 839	149	81.9	1179	[4] 157	138	142
December	----------	[7] 811	----------	----------	----------	[5] 156	----------	143
Food:								
1929—June	165.3	----------	156	94.7	1176	[4] 151	155	147
December	161.6	[7] 1017	157	91.7	1124	[5] 150	157	159
1930—June	151.6	988	151	80.9	1120	[4] 140	151	138
December	144.8	922	149	80.2	1085	[5] 137	149	141
1931—June	140.6	839	138	75.9	1064	[4] 130	141	127
December	125.5	835	136	69.1	1004	[5] 128	134	132
1932—June	119.2	778	133	68.1	963	[4] 125	125	123
December	----------	[7] 745	----------	----------	----------	[5] 125	----------	125
Clothing:								
1929—June	----------	----------	159	106.5	----------	[4] 185	167	218
December	----------	[7] 972	157	108.9	----------	[5] 183	165	215
1930—June	----------	[6] 952	153	105.8	----------	[4] 181	160	213
December	----------	[7] 924	148	99.6	----------	[5] 178	155	205
1931—June	----------	[6] 877	143	81.3	----------	[4] 175	145	195
December	----------	[7] 849	142	76.4	----------	[5] 170	137	190
1932—June	----------	[6] 826	144	73.0	----------	[4] 168	127	190
December	----------	[7] 784	----------	----------	----------	[5] 167	----------	188
Fuel and light:								
1929—June	----------	----------	161	127.6	----------	[4] 165	134	170
December	----------	[7] 990	160	134.6	----------	[5] 160	135	175
1930—June	----------	[6] 990	157	130.5	----------	[4] 160	132	170
December	----------	[7] 994	150	132.1	----------	[5] 156	131	175
1931—June	----------	[6] 990	148	131.7	----------	[4] 155	127	170
December	----------	[7] 975	146	129.2	----------	[5] 150	125	175
1932—June	----------	[6] 978	146	128.1	----------	[4] 149	121	170
December	----------	[7] 954	----------	----------	----------	[5] 144	----------	173
Rent:								
1929—June	----------	----------	175	131.1	----------	[4] 200	181	153
December	----------	[7] 1019	175	134.3	----------	[5] 200	181	152
1930—June	----------	[6] 1012	174	154.8	----------	[4] 205	185	153
December	----------	[7] 998	174	170.1	----------	[5] 205	185	154
1931—June	----------	[6] 964	173	170.1	----------	[4] 206	187	154
December	----------	[7] 922	173	170.1	----------	[5] 206	187	154
1932—June	----------	----------	172	170.1	----------	[4] 206	187	154
December	----------	----------	----------	----------	----------	[5] 206	----------	155

[4] April. [5] October. [6] May. [7] November.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for November, 1932

By J. J. Kunna, Chief Statistician U. S. Bureau of Immigration

DURING November, 1932, the number of immigrant aliens or newcomers admitted for permanent residence in the United States (2,006) was (with the exception of February, 1932) the lowest during a single month since 1831—over a century ago.

The admissions during November represented a decrease of 30.8 per cent from the 2,899 immigrants for the corresponding month a year ago. Immigration from Europe dropped from 1,760 to 1,138, or 35.3 per cent, while the decline for Canada was from 631 to 498, or 21.1 per cent, and for other countries from 508 to 370, or 27.2 per cent. In the first five months—July to November—of the current fiscal year, 12,321 immigrants entered the country as against 19,093 in the same months of last year, a decline of 6,772. The number of quota immigrants admitted dropped from 40,989 for the period from July to November, 1930, to 6,709 for the same months of 1931, and then to 4,387 for the corresponding months of 1932. In other words, only 1 alien charged to the quota is now admitted where 10 entered the country two years ago. Quota aliens born in the Irish Free State show the largest decrease—from 6,245 to 171, or 97.3 per cent.

Nearly three-fourths of the immigrants who arrived in November, 1932, were women and children under 16 years of age, and over one-half of the females were married.

The principal States to which these new arrivals were destined were New York, California, Michigan, Massachusetts, and Pennsylvania.

INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1 TO NOVEMBER 30, 1932

Period	Inward						Outward					
	Aliens admitted			United States citizens arrived	Total	Aliens debarred from entering [1]	Aliens departed			United States citizens departed	Total	Aliens deported after landing [2]
	Immigrant	Non-immigrant	Total				Emigrant	Non-emigrant	Total			
July, 1932	2,079	10,534	12,613	28,006	40,619	561	11,328	24,089	35,417	59,298	94,715	2,100
August, 1932	2,719	14,107	16,826	54,070	70,896	605	8,783	20,141	28,924	57,887	86,811	1,946
September, 1932	3,129	21,348	24,477	60,258	84,735	596	8,856	17,290	26,146	38,368	64,514	1,645
October, 1932	2,388	14,407	16,795	28,058	44,853	590	7,788	14,776	22,564	28,854	51,418	2,103
November, 1932	2,006	8,681	10,687	14,879	25,566	428	8,031	13,062	21,093	22,129	43,222	1,530
Total	12,321	69,077	81,398	185,271	266,669	2,780	44,786	89,358	134,144	206,536	340,680	9,374

[1] These aliens are not included among arrivals, as they were not permitted to enter the United States.

[2] These aliens (exclusive of visitors across land borders) are included among aliens departed, they having entered the United States, legally or illegally, and later deported.

PUBLICATIONS RELATING TO LABOR

Official—United States

CONNECTICUT.—Commission to Investigate the Subject of Old-Age Pensions. *Report on old-age relief. Hartford, 1932. 125 and 82 pp.*

Reviewed in this issue.

—— Unemployment Commission. *Measures to alleviate unemployment in Connecticut. Hartford, December, 1932. 205 pp., charts.*

Reviewed in this issue.

ILLINOIS.—Emergency Relief Commission. *Third Interim Report. Chicago, 1932. 20 pp.*

The report describes the activities of the commission in providing relief throughout the State through November 15, 1932.

MASSACHUSETTS.—Department of Labor and Industries. *Labor Bulletin No. 164: Time rates of wages and hours of labor in Massachusetts, 1931. Part II of the annual report on the statistics of labor for the year ending November 30, 1931.* [*Boston, 1932.*] *121 pp.*

—— Special Commission on Stabilization of Employment. *Final report. Boston, 1933. 250 pp.*

Reviewed in this issue.

UNITED STATES.—Department of Agriculture. *Yearbook of agriculture, 1932. Washington, 1932. 975 pp., maps, charts, illus.*

The volume includes information on mechanization in agriculture, production, prices of all kinds of agricultural products, wages of farm labor and of common labor employed on Federal-aid highway projects, farm incomes, living standards on farms, changes in farm population and farm tenancy, changes in number of workers gainfully employed in farming, land use, and marketing and purchasing associations.

—— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 570: Wages and hours of labor in foundries and machine shops in 1931. Washington, 1932. 148 pp.*

An advance summary of the data obtained in this survey was published in the Monthly Labor Review for January, 1932 (pp. 134–143).

—— —— Children's Bureau. *Publication No. 214: The illegally employed minor and the workmen's compensation law, by Ellen Nathalie Matthews. Washington, 1932. 226 pp.*

—— Federal Board for Vocational Education. *Sixteenth annual report, 1932. Washington, 1932. 117 pp.*

Data from this publication are given in this issue of the Monthly Labor Review.

—— Interstate Commerce Commission. *Ex Parte No. 106: Six-hour day investigation. In re the effect upon operation, service, and expenses of applying the principle of a six-hour day in the employment of railway employees. Washington, December 6, 1932.* [*Various paging; mimeographed.*]

Some of the findings in this report are given in this issue.

—— —— *Forty-sixth annual report. Washington, 1932. 269 pp.*

Includes statistics of average number of employees, and their total compensation, in various divisions of Class I steam railways during the fiscal year ending June 30, 1932, and of number of persons killed and injured in railway accidents during that year with comparative figures for several preceding years.

UNITED STATES.—President's Research Committee on Social Trends. *Recent social trends in the United States. New York, McGraw-Hill Book Co. (Inc.), 1933. 2 vols. 1568 pp., charts.*

Reviewed in this issue.

—— Treasury Department. Public Health Service. *Annual report, for the fiscal year 1932. Washington, 1932. 199 pp., chart, illus.*

This report contains a statement of the activities of the office of industrial hygiene and sanitation during 1932, which included dust studies, pollution of air and illumination studies, investigation of industrial dermatoses, and studies of sickness and physical impairment among industrial workers.

Official—Foreign Countries

CANADA.—Department of Labor. *Fifth annual report on cooperative associations in Canada, 1932. Ottawa, 1932. 93 pp.*

Contains not only the usual directory of cooperative associations, but also statistics of membership of the various types of societies, a summary of which is given in this issue of the Monthly Labor Review.

FRANCE.—Bureau de la Statistique Générale. *Annuaire statistique, 1931. Paris, 1932.* [*Various paging.*]

This French statistical yearbook for 1931 contains comprehensive statistics covering all phases of the national life in France and its colonies and protectorates. The statistics of interest to labor include those relating to wages, hours of labor, savings, insurance, and workmen's compensation.

GREAT BRITAIN.—Ministry of Labor. *Directory of employers' associations, trade-unions, joint organizations, etc., 1932. London, 1932. 197 pp.*

—— Registry of Friendly Societies. *Report for the year 1931: Part 4.—Trade unions; Section I, Proceedings and statistical notes. London 1932. 16 pp.*

LEAGUE OF NATIONS.—*Review of world production, 1925–1931. Geneva, 1932. 166 pp., charts. (World Peace Foundation, Boston, American agent.)*

NEW ZEALAND.—Department of Labor. *Report [for the year ending March 31, 1932]. Wellington, 1932. 23 pp.*

Statistics of accidents and of unemployment are included.

QUEENSLAND (AUSTRALIA).—Insurance Office. *Sixteenth annual report, for the year ended June 30, 1932. Brisbane, 1932. 33 pp.*

Operations, for the fiscal year 1931–32, under legislation providing for workmen's compensation for industrial accidents and occupational diseases (including miners' phthisis), and life insurance written by the Government.

—— Unemployment Council. *Ninth annual report on operations under the unemployed workers' insurance acts, 1922 to 1930. Brisbane, 1932. 19 pp.*

SOUTH AUSTRALIA (AUSTRALIA).—Statistical Office. *Statistical register, 1930–31. Adelaide, 1932.* [*Various paging.*]

Contains data on apprenticeship, cooperative societies, housing, number of workers employed and average weekly wages in various industries, population statistics, prices, etc.

VICTORIA (AUSTRALIA).—Department of Labor. *Report of the chief inspector of factories and workshops for the year ended December 31, 1931. Melbourne, 1932. 44 pp.*

Data on average weekly wages in Victoria, taken from this report, are given in this issue.

Unofficial

BROCKWAY, A. FENNER. *Hungry England. London, Victor Gollancz (Ltd.), 1932. 224 pp.*

A description, based on a personal survey, of the conditions under which the unemployed are living in some of the areas which have been hard hit by unemployment. A number of budgets are given, showing how families fare when the income is reduced to unemployment insurance, transitional payments, or poor relief.

CASTRO, RAYMOND. *Les causes du chômage. Paris, Les Presses Universitaires de France, 1931. 174 pp.*

A study of the causes of unemployment, covering seasonal and cyclical unemployment, and irregular fluctuations in employment.

CLARK, COLIN. *The national income, 1924–1931. London, Macmillan & Co. (Ltd.), 1932. 167 pp., charts.*

COLORADO AGRICULTURAL COLLEGE. Experiment Station. *Bulletin 397: Operating practices of farmers' cooperative elevators in Colorado, by D. N. Donaldson and Perry V. Hemphill. Fort Collins, 1932. 63 pp., charts, illus.*

COMMITTEE ON THE COSTS OF MEDICAL CARE. *Publication No. 17: Nursing services and insurance for medical care in Brattleboro, Vermont: A study of the activities of the Thomas Thompson Trust, by Allon Peebles and Valeria D. McDermott. Chicago, University of Chicago Press, 1932. 65 pp.*

This study deals with two activities which have been developed in Brattleboro, which are of general significance in the field of nursing and medical care. These are a training school for attendant nurses, in which women are given a 15-month course under the direction of public-health nurses, the attendants being subsequently employed through a service office under the charge of graduate nurses, and the group-insurance systems operated by two benefit associations, by which members obtain nursing care at reduced costs.

COMMITTEE ON THE GRADING OF NURSING SCHOOLS. *Nurses—production, education, distribution, and pay. New York, 370 Seventh Avenue, 1930. 36 pp., maps, charts.*

This report shows the average earnings of nurses based upon figures gathered in 1927, and discusses the various problems involved in providing adequate nursing service.

CONFÉDÉRATION GÉNÉRALE DU TRAVAIL. *Congrès Confédéral de Paris. Rapports moral et financier du XXVII^e Congrès National corporatif tenu Septembre 15 au 18, 1931. Paris, 211 Rue Lafayette [1932?]. 551 pp.*

The proceedings of the 27th congress of the French General Confederation of Labor, held in Paris in 1931.

EGGLESTON, F. W. *State socialism in Victoria. London, P. S. King & Son (Ltd.), 1932. 354 pp.*

GEBLER, ROBERT T. *Get that job! A practical guide for the man seeking employment. New York, Frederick A. Stokes Co., 1932. 160 pp.*

HICKS, J. R. *The theory of wages. London, Macmillan & Co. (Ltd.), 1932. 247 pp.*

HUNTER, ARTHUR. *Unemployment insurance and the dole in Great Britain. New York, New York Life Insurance Co. (printers), 1932. 15 pp. (Reprinted, with a few additions, from the New York Times, of October 9, 1932.)*

INDUSTRIAL EXPERIMENTERS ASSOCIATED. *Proceedings of first annual conference, held at New York, N. Y., May 26, 1932. New York, Bureau of Personnel Administration, 1932. 105 pp.*

Industrial Experimenters Associated was established in April, 1931, for the purpose of fostering "further experiment and development in methods of employer-employee ownership, control and management in industry." The proceedings at this first conference of the organization included addresses describing

some of the industrial enterprises in which the employees own a considerable part of the business—such as the Columbia Conserve Co., Graybar Electric Co., Correlated Graphic Industries, Work-Togs (Ltd.), etc.

INTERNATIONAL BOOT AND SHOE OPERATIVES AND LEATHER WORKERS' FEDERATION. *Annual report. Nürnberg-W (Germany), Essenweinstrasse 1, 1932. 24 pp. (International Correspondence, No. 22, 1932.)*

Includes a digest of the history of the international secretariat for 25 years.

INTERNATIONAL UNION FOR THE SCIENTIFIC INVESTIGATION OF POPULATION PROBLEMS. *Problems of population, being the report of the proceedings of the second general assembly of the International Union * * * held at London, June 15–18, 1931. London, George Allen & Unwin (Ltd.), 1932. 378 pp., map, charts.*

JOSE, ARTHUR. *Australia, human and economic. London, George G. Harrap & Co. (Ltd.), 1932. 333 pp., maps, diagrams, illus.*

Intended as an explanation rather than as a history, this volume attempts to give some idea of what Australia is really like, its physical and social peculiarities, why it has developed as it has, the character of its people as affected by the circumstances of its early settlement and the nature of the continent, and the effect of these factors in the economic and social structure of the six States making up the Commonwealth.

KANSAS, UNIVERSITY OF. University Extension Division. *A debate handbook on unemployment insurance. A brief and bibliography with selected articles. Lawrence, Kans. [1931?]. 232 pp.*

LA PERRIÈRE, HENRI DE. *Les allocations familiales dans la région Troyenne pendant les dix premières années d'existence de la Caisse patronale de Compensation. Troyes, Caisse de Compensation, 23 rue du Palais-de-Justice, 1930. 43 pp., chart, illus.*

An account of the decade of experience of an important French family allowance fund.

NATIONAL BUREAU OF ECONOMIC RESEARCH (INC.). *Publication No. 21: Economic tendencies in the United States—aspects of prewar and postwar changes, by Frederick C. Mills. New York, 51 Madison Avenue, 1932. 639 pp., charts.*

NATIONAL CONFERENCE OF JEWISH SOCIAL SERVICE. *Proceedings of the annual session held in Philadelphia, May 12–17, 1932. New York, 71 West 47th Street, 1932. 234 pp.*

The program for the sectional meetings was arranged under the following headings: Community organization, family welfare, child care, the aged, health, Jewish centers, and personnel and administration problems.

NATIONAL COUNCIL ON NATURALIZATION AND CITIZENSHIP. *Handicaps in naturalization: A study of the effect of high fees upon the naturalization of aliens in the United States, by Cecilia Razovsky. New York, 112 E. 19th Street, 1932. 27 pp., map.*

As a result of its investigations reported on in this pamphlet, the Council unanimously adopted a recommendation for the reduction of the naturalization fee.

NORTON, THOMAS L. *Trade-union policies in the Massachusetts shoe industry, 1919–1929. New York, Columbia University Press, 1932. 379 pp.*

A study of the problems of the shoe workers in Massachusetts.

PENNSYLVANIA, UNIVERSITY OF. Wharton School of Finance and Commerce. Industrial Research Department. *Research Studies, XXI: Wage rates and working time in the bituminous coal industry, 1912–1922, by Waldo E. Fisher and Anne Bezanson. Philadelphia, 1932. 374 pp., charts.*

The movement of wage rates in the bituminous-coal industry during the period 1912 to 1922 is traced, showing the fluctuations that have occurred in the rates paid different classes of mine labor. Comparisons are also made of the changes in rates paid in union and nonunion fields.

TAWNEY, R. H. *Land and labor in China. London, George Allen & Unwin (Ltd.), 1932. 207 pp.*

TRADES AND LABOR CONGRESS OF CANADA. *Report of the proceedings of the 48th convention, held at the city of Hamilton, Ontario, September 12 to 17, 1932. Ottawa, 172 McLaren Street [1932]. 245 pp.*

A résumé of the proceedings of the 1932 convention of the Congress is given in the December, 1932, Monthly Labor Review.

UNION SUISSE DES PAYSANS. Secrétariat des Paysans Suisses. *Publication No. 104: Trente-quatrième rapport annuel du comité directeur de l'union suisse des paysans et du secrétariat des paysans suisses, 1931. Brugg, 1932. 157 pp.*

Contains data on various aspects of agricultural cooperation in Switzerland.

—— —— *Rapport au Département fédéral de l'Economie publique, I^re partie: Recherches relatives à la rentabilité de l'agriculture pendant l'exercice 1930–31. Berne, 1932. Map, charts. (Tirage à part de l'Annuaire agricole de la Suisse, 1932, pp. 75–151.)*

Contains data on production of agricultural products, the trend in prices of such products, cost of production, net return, labor time required per hectare, labor cost per man-day, etc.

VITELES, MORRIS S. *Industrial psychology. New York, W. W. Norton & Co. (Inc.), 1932. 652 pp., diagrams, illus.*

The objective of this volume is to show the genesis, problems, settings, findings, and results of the application of psychology to industry.

WARBURTON, CLARK. *The economic results of prohibition. New York, Columbia University Press, 1932. 273 pp. (Columbia University Studies in History, Economics, and Public Law, No. 379.)*

ZENTRALVERBAND DEUTSCHER KONSUMVEREINE. *Jahrbuch, 1932. Erster band, 472 pp., charts; zweiter band, 391 pp. Hamburg, 1932.*

First and second volumes of the 1932 yearbook of the Central Union of German Consumers' Cooperative Societies. The first volume contains statistics on membership, sales, balance sheets, etc., of the Central Union itself and of each of its member unions, the wholesale society, etc. The second volume contains the report of the Central Union and of the central auditing union.

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